

(FILE 'HOME' ENTERED AT 17:12:13 ON 05 FEB 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,  
USPATFULL, JAPIO' ENTERED AT 17:12:24 ON 05 FEB 2002

L1	14 S LAL, ALTAF/AU
L2	46 S SHI, YA PING/AU
L3	20 DUP REM L2 (26 DUPLICATES REMOVED)
L4	114 S HASNAIN, SEYED E/AU
L5	74 DUP REM L4 (40 DUPLICATES REMOVED)
L6	5 S L5 AND PLASMODIUM
L7	75133 S PLASMODIUM FALCIPARUM
L8	19983 S L7 AND PROTEIN
L9	2663 S L8 AND STAGES
L10	497 S L9 AND EPITOPES
L11	277 DUP REM L10 (220 DUPLICATES REMOVED)
L12	112 S L11 AND T CELL
L13	112 DUP REM L12 (0 DUPLICATES REMOVED)

ACCESSION NUMBER: 2002:19196 USPATFULL  
TITLE: Eukaryotic layered vector initiation systems for  
production of recombinant **proteins**  
INVENTOR(S): Dubensky, Jr., Thomas W., Rancho Sante Fe, CA, United  
States  
Polo, John M., San Diego, CA, United States  
Driver, David A., San Diego, CA, United States  
PATENT ASSIGNEE(S): Chiron Corporation, Emeryville, CA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6342372	B1	20020129
APPLICATION INFO.:	US 1999-350399		19990708 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-931783, filed on 16 Sep 1997, now abandoned Division of Ser. No. US 1995-404796, filed on 15 Mar 1995, now patented, Pat. No. US 6015686 Continuation-in-part of Ser. No. US 1995-376184, filed on 20 Jan 1995, now abandoned Continuation-in-part of Ser. No. US 1994-348472, filed on 30 Nov 1994, now abandoned Continuation-in-part of Ser. No. US 1994-198450, filed on 18 Feb 1994, now abandoned Continuation-in-part of Ser. No. US 1993-122791, filed on 15 Sep 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	McMasters, David D., Dollard, Anne S., Blackburn, Robert P.		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	37 Drawing Figure(s); 30 Drawing Page(s)		
LINE COUNT:	10217		

L13 ANSWER 2 OF 112 USPATFULL  
ACCESSION NUMBER: 2001:237483 USPATFULL  
TITLE: Detection and treatment of infections with  
immunoconjugates  
INVENTOR(S): Goldenberg, M. David, Short Hills, NJ, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001055595	A1	20011227
APPLICATION INFO.:	US 2001-935567	A1	20010824 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-158782, filed on 1 Dec 1993, PENDING Division of Ser. No. US 1993-37659, filed on 22 Mar 1993, GRANTED, Pat. No. US 5332567 Continuation of Ser. No. US 1992-840591, filed on 18 Feb 1992, ABANDONED Continuation of Ser. No. US 1989-399566, filed on 24 Aug 1989, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Bernhard D. Saxe, FOLEY & LARDNER, Washington Harbour, 3000 K Street, N.W., Suite 500, Washington, DC, 20007-5109		
NUMBER OF CLAIMS:	29		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1499		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 3 OF 112 USPATFULL  
ACCESSION NUMBER: 2001:208480 USPATFULL  
TITLE: Detection and treatment of infections with  
immunoconjugates

INVENTOR(S): Goldenberg, M. David, Short Hills, NJ, United States  
PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6319500	B1	20011120
APPLICATION INFO.:	US 1993-158782		19931201 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-37659, filed on 22 Mar 1993, now patented, Pat. No. US 5332567 Continuation of Ser. No. US 1992-840591, filed on 18 Feb 1992, now abandoned Continuation of Ser. No. US 1989-399566, filed on 24 Aug 1989, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Housel, James		
ASSISTANT EXAMINER:	Nelson, Brett		
LEGAL REPRESENTATIVE:	Foley & Lardner		
NUMBER OF CLAIMS:	31		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1529		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 4 OF 112 USPATFULL

ACCESSION NUMBER: 2001:202197 USPATFULL  
TITLE: Cloning and expression of **plasmodium falciparum** transmission-blocking target antigen, PFS230

INVENTOR(S): Williamson, Kim C., Rockville, MD, United States  
Kaslow, David C., Kensington, MD, United States  
PATENT ASSIGNEE(S): The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6316000	B1	20011113
APPLICATION INFO.:	US 1997-954441		19971020 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-323170, filed on 13 Oct 1994, now patented, Pat. No. US 5733772 Continuation of Ser. No. US 1993-10409, filed on 29 Jan 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew LLC		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	846		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 5 OF 112 USPATFULL

ACCESSION NUMBER: 2001:191105 USPATFULL  
TITLE: Agouti polypeptide compositions  
INVENTOR(S): Woychik, Richard P., Orinda, CA, United States  
Bultman, Scott J., Lakewood, OH, United States  
Michaud, Edward J., Kingston, TN, United States  
PATENT ASSIGNEE(S): UT-Battelle, LLC, Oak Ridge, TN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6310034	B1	20011030

APPLICATION INFO.: US 1998-34088 19980303 (9)  
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-64385, filed  
 on 21 May 1993, now abandoned  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Kammerer, Elyabik C.  
 LEGAL REPRESENTATIVE: Williams, Morgan & Amerson  
 NUMBER OF CLAIMS: 34  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 83 Drawing Figure(s); 41 Drawing Page(s)  
 LINE COUNT: 10935  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 6 OF 112 USPATFULL  
 ACCESSION NUMBER: 2001:162992 USPATFULL  
 TITLE: Multideterminant peptides that elicit helper  
 T-lymphocyte cytotoxic T-lymphocyte and neutralizing  
 antibody responses against HIV-1  
 INVENTOR(S): Berzofsky, Jay A., Bethesda, MD, United States  
 Ahlers, Jeffrey D., Kensington, MD, United States  
 Pendleton, C. David, Bethesda, MD, United States  
 Nara, Peter, Frederick, MD, United States  
 Shirai, Mutsunori, Kita-gun, Japan  
 PATENT ASSIGNEE(S): The United States of America as represented by the  
 Department of Health and Human Services, Washington,  
 DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6294322	B1	20010925
APPLICATION INFO.:	US 1993-60988		19930514 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-847311, filed on 6 Mar 1992 Continuation-in-part of Ser. No. US 1988-148692, filed on 26 Jan 1988, now abandoned, said Ser. No. US 847311 And Ser. No. US 1991-751998, filed on 29 Aug 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Parkin, Jeffrey S.		
LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1,2		
NUMBER OF DRAWINGS:	49 Drawing Figure(s); 23 Drawing Page(s)		
LINE COUNT:	2006		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 7 OF 112 USPATFULL  
 ACCESSION NUMBER: 2001:131062 USPATFULL  
 TITLE: Nucleic acid molecules encoding monocyte chemotactic  
**protein 5** (MCP-5) molecules and uses therefor  
 INVENTOR(S): Gutierrez-Ramos, Jose-Carlos, Marblehead, MA, United  
 States  
 Jia, Gui-Quan, Cambridge, MA, United States  
 Gonzalo, Jose-Angel, Cambridge, MA, United States  
 PATENT ASSIGNEE(S): Center for Blood Research, Inc., Boston, MA, United  
 States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6274342	B1	20010814
APPLICATION INFO.:	US 1996-744419		19961108 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Mertz, Prema		



LEGAL REPRESENTATIVE: Lahive & Cockfield, LLP, Mandragouras, Amy E.,  
Laccotripe, Maria C.

NUMBER OF CLAIMS: 23

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Figure(s); 4 Drawing Page(s)

LINE COUNT: 3696

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 8 OF 112 USPATFULL

ACCESSION NUMBER: 2001:111840 USPATFULL

TITLE: Retro-, inverso- and retro-inverso synthetic peptide analogues

INVENTOR(S): Comis, Alfio, Bossley Park, Australia  
Tyler, Margaret Isabel, Turrumurra, Australia  
Fischer, Peter, Oslo, Norway

PATENT ASSIGNEE(S): Deakin Research Limited, New South Wales, Australia  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6261569	B1	20010717
	WO 9405311		19940317
APPLICATION INFO.:	US 1997-909551		19970812 (8)
	WO 1993-AU441		19930827
			19950424 PCT 371 date
			19950424 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation of Ser. No. US 387932, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1992-4374	19920827
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Allen, Marianne P.	
ASSISTANT EXAMINER:	Zeman, Mary K.	
LEGAL REPRESENTATIVE:	Howson and Howson	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	1585	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L13 ANSWER 9 OF 112 USPATFULL

ACCESSION NUMBER: 2001:51571 USPATFULL

TITLE: Multideterminant peptides that elicit helper  
T-lymphocyte, cytotoxic T lymphocyte and neutralizing  
antibody responses against HIV-1

INVENTOR(S): Berzofsky, Jay A., Bethesda, MD, United States  
Ahlers, Jeffrey D., Kensington, MD, United States  
Pendleton, C. David, Bethesda, MD, United States  
Nara, Peter, Frederick, MD, United States  
Shirai, Mutsunori, Kagawa, Japan

PATENT ASSIGNEE(S): The United States of America as represented by the  
Department of Health and Human Services, Washington,  
DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6214347	B1	20010410
APPLICATION INFO.:	US 1995-455685		19950531 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-60988, filed on 14 May 1993 Continuation-in-part of Ser. No. US 1992-847311, filed on 6 Mar 1992, now patented, Pat. No. US 5976541 Continuation-in-part of Ser. No. US 1991-751998, filed		

on 29 Aug 1991, now abandoned Continuation-in-part of  
Ser. No. US 1988-148692, filed on 26 Jan 1988, now  
abandoned

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Scheiner, Laurie  
ASSISTANT EXAMINER: Parkin, Jeffrey S.  
LEGAL REPRESENTATIVE: Townsend and Townsend and Crew LLP  
NUMBER OF CLAIMS: 1  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 17 Drawing Page(s)  
LINE COUNT: 1977  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 10 OF 112 USPTAFULL  
ACCESSION NUMBER: 2001:1858 USPTAFULL  
TITLE: Hybrid **protein** between CS from plasmodium and  
HBSAG  
INVENTOR(S): De Wilde, Michel, Glabais, Belgium  
Cohen, Joseph, Brussels, Belgium  
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals (s.a.), Rixensart,  
Belgium (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6169171	B1	20010102
APPLICATION INFO.:	US 1997-932929		19970918 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1996-663371, filed on 13 Jun 1996, now abandoned Continuation of Ser. No. US 244085, now abandoned Continuation-in-part of Ser. No. US 1992-842694, filed on 27 Feb 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Minnifield, Nita		
LEGAL REPRESENTATIVE:	Baumeister, Kirk, King, William T.		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	22 Drawing Figure(s); 21 Drawing Page(s)		
LINE COUNT:	1018		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 11 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:345331 BIOSIS  
DOCUMENT NUMBER: PREV200100345331  
TITLE: Human antibodies against **Plasmodium**  
**falciparum** liver-stage antigen 3 cross-react with  
Plasmodium yoelii preerythrocytic-stage **epitopes**  
and inhibit sporozoite invasion in vitro and in vivo.  
AUTHOR(S): Brahimi, Karima; Badell, Edgar; Sauzet, Jean-Pierre;  
BenMohamed, Lbachir; Daubersies, Pierre; Guerin-Marchand,  
Claudine; Snounou, George; Druilhe, Pierre (1)  
CORPORATE SOURCE: (1) Bio-Medical Parasitology Unit, Institut Pasteur, 28,  
Rue du Docteur Roux, 75015, Paris: druilhe@pasteur.fr  
France  
SOURCE: Infection and Immunity, (June, 2001) Vol. 69, No. 6, pp.  
3845-3852. print.  
ISSN: 0019-9567.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L13 ANSWER 12 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 2001:281056 SCISEARCH  
THE GENUINE ARTICLE: 413MT

TITLE: Rhoptry-associated **protein** 1-binding monoclonal antibody raised against a heterologous peptide sequence inhibits **Plasmodium falciparum** growth in vitro  
 AUTHOR: Moreno R; Polt1-Frank F; Stuber D; Matile H; Mutz M; Weiss N A; Pluschke G (Reprint)  
 CORPORATE SOURCE: Swiss Trop Inst, Dept Med Parasitol & Infect Biol, CH-4002 Basel, Switzerland (Reprint); Novartis Pharma, CH-4002 Basel, Switzerland; F Hoffmann La Roche & Co Ltd, CH-4070 Basel, Switzerland  
 COUNTRY OF AUTHOR: Switzerland  
 SOURCE: INFECTION AND IMMUNITY, (APR 2001) Vol. 69, No. 4, pp. 2558-2568.  
 Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA.  
 ISSN: 0019-9567.  
 DOCUMENT TYPE: Article; Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 59  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 13 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 ACCESSION NUMBER: 2001:448253 BIOSIS  
 DOCUMENT NUMBER: PREV200100448253  
 TITLE: Immunogenicity of recombinant fragments of **Plasmodium falciparum** acidic basic repeat antigen produced in Escherichia coli.  
 AUTHOR(S): Kushwaha, Ashima; Rao, Prakash P. L.; Suresh, R. Padma; Chauhan, V. S. (1)  
 CORPORATE SOURCE: (1) International Centre for Genetic Engineering and Biotechnology, Aruna Asaf Ali Marg, New Delhi, 110067: virander@icgeb.res.in India  
 SOURCE: Parasite Immunology (Oxford), (August, 2001) Vol. 23, No. 8, pp. 435-444. print.  
 ISSN: 0141-9838.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

L13 ANSWER 14 OF 112 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
 ACCESSION NUMBER: 2002002897 EMBASE  
 TITLE: Peptide-based subunit vaccines against pre-erythrocytic **stages** of malaria parasites.  
 AUTHOR: Tsuji M.; Zavala F.  
 CORPORATE SOURCE: F. Zavala, Department of Medical Parasitology, New York Univ. School of Medicine, 341 East 25th Street, New York, NY 10010, United States. fg5@nyu.edu  
 SOURCE: Molecular Immunology, (2001) 38/6 (433-442).  
 Refs: 80  
 ISSN: 0161-5890 CODEN: IMCHAZ  
 S 0161-5890(01)00079-7  
 PUBLISHER IDENT.:  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 004 Microbiology  
 026 Immunology, Serology and Transplantation  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

L13 ANSWER 15 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
 ACCESSION NUMBER: 2001:185596 SCISEARCH  
 THE GENUINE ARTICLE: 402PA  
 TITLE: Protective CD8(+) **T cell** responses against the preerythrocytic **stages** of malaria

AUTHOR: parasites: an overview  
 CORPORATE SOURCE: Oliveira-Ferreira J (Reprint); Daniel-Ribeiro C T  
 FIOCRUZ, Inst Oswaldo Cruz, Lab Pesquisas Malaria, WHO  
 Collaborating Ctr Res & Training Immunol Para, Av Brasil  
 4365, BR-21045900 Rio De Janeiro, Brazil (Reprint);  
 FIOCRUZ, Inst Oswaldo Cruz, Lab Pesquisas Malaria, WHO  
 Collaborating Ctr Res & Training Immunol Para, BR-21045900  
 Rio De Janeiro, Brazil  
 COUNTRY OF AUTHOR: Brazil  
 SOURCE: MEMORIAS DO INSTITUTO OSWALDO CRUZ, (FEB 2001) Vol. 96,  
 No. 2, pp. 221-227.  
 Publisher: FUNDACO OSWALDO CRUZ, AV BRASIL 4365, 21045-900  
 RIO DE JANEIRO, RJ, BRAZIL.  
 ISSN: 0074-0276.  
 DOCUMENT TYPE: Article; Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 56  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 16 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)

ACCESSION NUMBER: 2001:513993 SCISEARCH

THE GENUINE ARTICLE: 445UA

TITLE: Identification of frequently recognized dimorphic  
**T-cell epitopes in**  
**Plasmodium falciparum** merozoite surface  
**protein-1** in West and East Africans: Lack of  
 correlation of immune recognition and allelic prevalence  
 AUTHOR: Lee E A M (Reprint); Flanagan K L; Odhiambo K; Reece W H  
 H; Potter C; Bailey R; Marsh K; Pinder M; Hill A V S;  
 Plebanski M

CORPORATE SOURCE: Univ Oxford, John Radcliffe Hosp, Mol Immunol Grp, Inst  
 Mol Med, Nuffield Dept Med, Oxford OX3 9DU, England  
 (Reprint); Med Res Council Labs, Banjul, Gambia; Univ  
 London London Sch Hyg & Trop Med, London WC1E 7HT,  
 England; Kenya Med Res Inst, Kilifi Res Unit, Kilifi,  
 Kenya

COUNTRY OF AUTHOR: England; Gambia; Kenya  
 SOURCE: AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE,  
 (MAR-APR 2001) Vol. 64, No. 3-4, pp. 194-203.  
 Publisher: AMER SOC TROP MED & HYGIENE, 8000 WESTPARK DR,  
 STE 130, MCLEAN, VA 22101 USA.  
 ISSN: 0002-9637.

DOCUMENT TYPE: Article; Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 55

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 17 OF 112 USPATFULL

ACCESSION NUMBER: 2000:141886 USPATFULL

TITLE: Recombinant fowlpox viruses and uses thereof

INVENTOR(S): Cochran, Mark D., 4506 Horizon Dr., Carlsbad, CA,  
 United States 92008  
 Junker, David E., 6901 Galewood St., San Diego, CA,  
 United States 92120

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6136318		20001024
APPLICATION INFO.:	US 1995-486414		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 1994-US2252, filed on 28 Feb 1994 which is a continuation of Ser. No. US 1993-24156, filed on 26 Feb 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

PRIMARY EXAMINER: Mosher, Mary E.  
ASSISTANT EXAMINER: Salimi, Ali R.  
LEGAL REPRESENTATIVE: White, John P.Cooper & Dunham LLP  
NUMBER OF CLAIMS: 29  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 11 Drawing Page(s)  
LINE COUNT: 3480  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 18 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:134749 USPATFULL  
TITLE: Recombinant flagellin vaccines  
INVENTOR(S): Majarian, William R., Mt. Royal, NJ, United States  
Stocker, Bruce A. D., Palo Alto, CA, United States  
Newton, Salete M. C., Mountain View, CA, United States  
PATENT ASSIGNEE(S): American Cyanamid Company, Madison, NJ, United States  
(U.S. corporation)  
The Board of Trustees of the Leland Stanford Junior  
University, Stanford, CA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6130082		20001010
APPLICATION INFO.:	US 1992-837668		19920214 (7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1989-348430, filed on 5 May 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-190570, filed on 5 May 1988, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds, P.C.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	15 Drawing Figure(s); 17 Drawing Page(s)		
LINE COUNT:	2404		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 19 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:102415 USPATFULL  
TITLE: Fusion **proteins** comprising ICAM-R  
polypeptides and immunoglobulin constant regions  
INVENTOR(S): Gallatin, W. Michael, Seattle, WA, United States  
Vazeux, Rosemay, Seattle, WA, United States  
PATENT ASSIGNEE(S): ICOS Corporation, Bothell, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6100383		20000808
APPLICATION INFO.:	US 1995-475680		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-286754, filed on 5 Aug 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-102852, filed on 5 Aug.1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-9266, filed on 22 Jan 1993, now abandoned And a continuation-in-part of Ser. No. WO 1993-US787, filed on 26 Jan 1993 which is a continuation-in-part of Ser. No. US 1992-894061, filed on 5 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889724, filed on 26 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-827689, filed on 27 Jan 1992, now abandoned		

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Duffy, Patricia A.  
LEGAL REPRESENTATIVE: Marshall, O'Toole, Gerstein, Murray & Borun  
NUMBER OF CLAIMS: 16  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 39 Drawing Figure(s); 34 Drawing Page(s)  
LINE COUNT: 6203  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 20 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:91543 USPATFULL  
TITLE: Peptide composition for prevention and treatment of HIV infection and immune disorders  
INVENTOR(S): Wang, Chang Yi, Cold Spring Harbor, NY, United States  
PATENT ASSIGNEE(S): United Biomedical Inc., Hauppauge, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6090388		20000718
APPLICATION INFO.:	US 1998-100409		19980620 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Saunders, David		
ASSISTANT EXAMINER:	Tung, Mary B.		
LEGAL REPRESENTATIVE:	Morgan & Finnegan LLP		
NUMBER OF CLAIMS:	23		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	3077		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 21 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:64849 USPATFULL  
TITLE: Polynucleotide vaccine protective against malaria, methods of protection and vector for delivering polynucleotide vaccines  
INVENTOR(S): Hoffman, Stephen L., Gaithersburg, MD, United States  
Hedstrom, Richard C., Gaithersburg, MD, United States  
Sedegah, Martha, Gaithersburg, MD, United States  
PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of the Navy, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6066623		20000523
APPLICATION INFO.:	US 1993-155888		19931123 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Crouch, Deborah		
LEGAL REPRESENTATIVE:	Spevack, A. D.		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1037		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 22 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:47206 USPATFULL  
TITLE: Heparin and sulfatide binding peptides from the type-I repeats of human thrombospondin and conjugates thereof  
INVENTOR(S): Roberts, David D., Bethesda, MD, United States

## PATENT ASSIGNEE(S):

Krutzsch, Henry C., Bethesda, MD, United States  
Guo, Nenghua, Gaithersburg, MD, United States  
The United States of America as represented by the  
Department of Health and Human Services, Washington,  
DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6051549		20000418
APPLICATION INFO.:	US 1998-41119		19980311 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-487568, filed on 7 Jun 1995, now patented, Pat. No. US 5770563 which is a continuation-in-part of Ser. No. US 1994-215085, filed on 21 Mar 1994, now abandoned which is a continuation-in-part of Ser. No. US 1991-801812, filed on 6 Dec 1991, now patented, Pat. No. US 5357041		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Colba, Bennett		
LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew LLP		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	64 Drawing Figure(s); 63 Drawing Page(s)		
LINE COUNT:	4435		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 23 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:34422 USPATFULL  
TITLE: Antibodies to ICAM-related **protein**  
INVENTOR(S): Gallatin, W. Michael, Seattle, WA, United States  
Vazeux, Rosemay, Seattle, WA, United States  
PATENT ASSIGNEE(S): ICOS Corporation, Bothell, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6040176		20000321
APPLICATION INFO.:	US 1996-714017		19960912 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-286754, filed on 5 Aug 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-102852, filed on 5 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-9266, filed on 22 Jan 1993, now abandoned which is a continuation-in-part of Ser. No. WO 1993-US787, filed on 26 Jan 1993 which is a continuation-in-part of Ser. No. US 1992-894061, filed on 5 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889724, filed on 26 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-827689, filed on 27 Jan 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Duffy, Patricia		
LEGAL REPRESENTATIVE:	Marshall, O'Toole, Gerstein, Murray & Borun		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	39 Drawing Figure(s); 34 Drawing Page(s)		
LINE COUNT:	6171		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 24 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:15736 USPATFULL  
TITLE: GnRH-leukotoxin chimeras  
INVENTOR(S): Potter, Andrew A., Saskatoon, Canada

PATENT ASSIGNEE(S): Manns, John G., Saskatoon, Canada  
University of Saskatchewan, Saskatoon, Canada (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6022960		20000208
APPLICATION INFO.:	US 1998-124491		19980729 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-694865, filed on 9 Aug 1996, now patented, Pat. No. US 5837268 which is a continuation-in-part of Ser. No. US 1995-387156, filed on 10 Feb 1995, now patented, Pat. No. US 5723129 which is a continuation-in-part of Ser. No. US 1992-960932, filed on 14 Oct 1992, now patented, Pat. No. US 5422110 which is a continuation-in-part of Ser. No. US 1991-779171, filed on 16 Oct 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Minnifield, Nita		
LEGAL REPRESENTATIVE:	Robins and Associates		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	15 Drawing Figure(s); 37 Drawing Page(s)		
LINE COUNT:	3513		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 25 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:7195 USPATFULL  
TITLE: Method for stimulating an immune response utilizing recombinant alphavirus particles  
INVENTOR(S): Dubensky, Jr., Thomas W., Rancho Sante Fe, CA, United States  
Polo, John M., San Diego, CA, United States  
Chang, Steven M.W., San Diego, CA, United States  
Jolly, Douglas J., Leucadia, CA, United States  
PATENT ASSIGNEE(S): Chiron Corporation, Emeryville, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6015694		20000118
APPLICATION INFO.:	US 1997-931869		19970916 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-404796, filed on 15 Mar 1995 which is a continuation-in-part of Ser. No. US 1995-376184, filed on 18 Jan 1995, now abandoned which is a continuation-in-part of Ser. No. US 1994-348472, filed on 30 Nov 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-198450, filed on 18 Feb 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-122791, filed on 15 Sep 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	McMasters, David D., Blackburn, Robert P.		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	35 Drawing Figure(s); 30 Drawing Page(s)		
LINE COUNT:	10431		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 26 OF 112 USPATFULL  
ACCESSION NUMBER: 2000:7187 USPATFULL  
TITLE: Eukaryotic layered vector initiation systems



INVENTOR(S): Dubensky, Jr., Thomas W., Rancho Sante Fe, CA, United States  
Polo, John M., San Diego, CA, United States  
Jolly, Douglas J., Leucadia, CA, United States  
Driver, David A., San Diego, CA, United States  
PATENT ASSIGNEE(S): Chiron Viagene, Inc., Emeryville, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6015686		20000118
APPLICATION INFO.:	US 1995-404796		19950315 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-376184, filed on 20 Jan 1995, now abandoned which is a continuation-in-part of Ser. No. US 1994-348472, filed on 30 Nov 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-198450, filed on 18 Feb 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-122791, filed on 15 Sep 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ketter, James		
ASSISTANT EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Seed & Berry, Kruse, Norman J., Blackburn, Robert P.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	37 Drawing Figure(s); 30 Drawing Page(s)		
LINE COUNT:	10466		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 27 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2000:389002 BIOSIS

DOCUMENT NUMBER: PREV200000389002

TITLE: High immunogenicity in chimpanzees of peptides and lipopeptides derived from four new **Plasmodium falciparum** pre-erythrocytic molecules.

AUTHOR(S): Benmohamed, Lbachir; Thomas, Alan; Bossus, Marc; Brahimi, Karima; Wubben, Jacqueline; Gras-Masse, Helene; Druilhe, Pierre (1)

CORPORATE SOURCE: (1) Unite de Parasitologie Bio-Medicale, Institut Pasteur, 28 Rue du Dr Roux, 75015, Paris France

SOURCE: Vaccine, (15 June, 2000) Vol. 18, No. 25, pp. 2843-2855. print.

ISSN: 0264-410X.

DOCUMENT TYPE: Article

LANGUAGE: English

SUMMARY LANGUAGE: English

L13 ANSWER 28 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 2000:186152 BIOSIS

DOCUMENT NUMBER: PREV200000186152

TITLE: Linkage of exogenous **T-cell epitopes** to the 19-kilodalton region of *Plasmodium yoelii* merozoite surface **protein 1** (MSP119) can enhance protective immunity against malaria and modulate the immunoglobulin subclass response to MSP119.

AUTHOR(S): Ahlborg, Niklas; Ling, Irene T.; Holder, Anthony A.; Riley, Eleanor M. (1)

CORPORATE SOURCE: (1) Department of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, Keppel St., London, WC1E 7HT UK

SOURCE: Infection and Immunity, (April, 2000) Vol. 68, No. 4, pp. 2102-2109.

ISSN: 0019-9567.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L13 ANSWER 29 OF 112 CABA COPYRIGHT 2002 CABI  
ACCESSION NUMBER: 2000:133084 CABA  
DOCUMENT NUMBER: 20000809183  
TITLE: Characterization of a differential immunoscreen  
epitope of **Plasmodium falciparum**  
using combinatorial agents  
AUTHOR: Singh, N. J.; Alfica Sehgal; Shobhona Sharma;  
Sehgal, A.; Sharma, S.  
CORPORATE SOURCE: Department of Biological Sciences, Tata Institute of  
Fundamental Research, Homi Bhabha Road, Mumbai 400  
005, India.  
SOURCE: Parasite Immunology, (2000) Vol. 22, No. 7, pp.  
333-340. 20 ref.  
ISSN: 0141-9838  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L13 ANSWER 30 OF 112 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:255782 CAPLUS  
DOCUMENT NUMBER: 133:55747  
TITLE: Characterization of domains of the phosphoriboprotein  
P0 of **Plasmodium falciparum**  
AUTHOR(S): Chatterjee, S.; Singh, S.; Sohoni, R.; Kattige, V.;  
Deshpande, C.; Chiplunkar, S.; Kumar, N.; Sharma, S.  
CORPORATE SOURCE: Department of Biological Sciences, Tata Institute of  
Fundamental Research, Mumbai, India  
SOURCE: Mol. Biochem. Parasitol. (2000), 107(2), 143-154  
CODEN: MBIPDP; ISSN: 0166-6851  
PUBLISHER: Elsevier Science Ireland Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 31 OF 112 LIFESCI COPYRIGHT 2002 CSA  
ACCESSION NUMBER: 2000:35448 LIFESCI  
TITLE: Analysis of immune responses against T- and B-cell  
**epitopes** from **Plasmodium**  
**falciparum** liver-stage antigen 1 in rodent malaria  
models and malaria-exposed human subjects in India  
AUTHOR: Joshi, S.K.; Bharadwaj, A.; Chatterjee, Sh.; Chauhan, V.S.\*  
CORPORATE SOURCE: International Centre for Genetic Engineering and  
Biotechnology, Aruna Asaf Ali Marg, P.O. Box 10504, New  
Delhi 110067, India; E-mail: virander@icgeb.res.in  
SOURCE: Infection and Immunity [Infect. Immun.], (20000100) vol.  
68, no. 1, pp. 141-150.  
ISSN: 0019-9567.  
DOCUMENT TYPE: Journal  
FILE SEGMENT: K; F  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L13 ANSWER 32 OF 112 USPATFULL  
ACCESSION NUMBER: 1999:163226 USPATFULL  
TITLE: Recombinant fowlpox viruses and uses thereof  
INVENTOR(S): Cochran, Mark D., Carlsbad, CA, United States  
Junker, David E., San Diego, CA, United States  
PATENT ASSIGNEE(S): Syntro Corporation, Lenexa, KS, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6001369		19991214
APPLICATION INFO.:	US 1995-477459		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 1994-US2252, filed on 28 Feb 1994 which is a continuation of Ser. No. US 1993-24156, filed on 26 Feb 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	White, John P.Cooper & Dunham LLP		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	11 Drawing Figure(s); 11 Drawing Page(s)		
LINE COUNT:	3668		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 33 OF 112 USPATFULL  
 ACCESSION NUMBER: 1999:150946 USPATFULL  
 TITLE: Methods for identifying modulators of **protein** kinase C phosphorylation of ICAM-related **protein**  
 INVENTOR(S): Gallatin, W. Michael, Mercer Island, WA, United States  
 Vazeux, Rosemay, Seattle, WA, United States  
 PATENT ASSIGNEE(S): ICOS Corporation, Bothwell, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5989843		19991123
APPLICATION INFO.:	US 1996-720420		19960927 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-487113, filed on 7 Jun 1995, now patented, Pat. No. US 5837822 which is a continuation-in-part of Ser. No. US 1993-102852, filed on 5 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-9266, filed on 22 Jan 1993, now abandoned And Ser. No. WO 1993-US787, filed on 26 Jan 1993 which is a continuation-in-part of Ser. No. US 1992-894061, filed on 5 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889724, filed on 26 May 1992 which is a continuation-in-part of Ser. No. US 1992-827689, filed on 27 Jan 1992		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Duffy, Patricia A.		
LEGAL REPRESENTATIVE:	Marshall, O'Toole, Gerstein, Murray & Borun		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	39 Drawing Figure(s); 34 Drawing Page(s)		
LINE COUNT:	7311		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 34 OF 112 USPATFULL  
 ACCESSION NUMBER: 1999:141305 USPATFULL  
 TITLE: Adjuvant for transcutaneous immunization  
 INVENTOR(S): Glenn, Gregory M., Bethesda, MD, United States  
 Alving, Carl R., Bethesda, MD, United States  
 PATENT ASSIGNEE(S): The United States of America as represented by the U.S. Army Medical Research & Material Command, Washington, DC, United States (U.S. government)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 5980898 19991109  
 APPLICATION INFO.: US 1997-896085 19970717 (8)  
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-749164, filed  
 on 14 Nov 1996  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Saunders, David  
 ASSISTANT EXAMINER: Tung, Mary Beth  
 LEGAL REPRESENTATIVE: Pillsbury, Madison & Sutro LLP  
 NUMBER OF CLAIMS: 13  
 EXEMPLARY CLAIM: 1,11  
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 5 Drawing Page(s)  
 LINE COUNT: 1988  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 35 OF 112 USPATFULL  
 ACCESSION NUMBER: 1999:132243 USPATFULL  
 TITLE: **Plasmodium falciparum** MHC class  
 I-restricted CTL **epitopes** derived from  
 pre-erythrocytic stage antigens  
 INVENTOR(S): Hill, Adrian Vivian Sinton, Oxford, United Kingdom  
 Gotch, Frances Margaret, Oxford, United Kingdom  
 Elvin, John, Oxford, United Kingdom  
 McMichael, Andrew James, Horton-cum-Studley, United  
 Kingdom  
 Whittle, Hilton Carter, The Gambia, United Kingdom  
 PATENT ASSIGNEE(S): Isis Innovation Limited, Oxford, United Kingdom  
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5972351		19991026
	WO 9320103		19931014
APPLICATION INFO.:	US 1994-318856		19941205 (8)
	WO 1992-GB9300711		19920405
			19941205 PCT 371 date
			19941205 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-8068	19920403
	GB 1992-17704	19920820
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Scheiner, Laurie	
ASSISTANT EXAMINER:	Parkin, Jeffrey S.	
LEGAL REPRESENTATIVE:	Wenderoth, Lind & Ponack, L.L.P.	
NUMBER OF CLAIMS:	2	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	1387	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L13 ANSWER 36 OF 112 USPATFULL  
 ACCESSION NUMBER: 1999:92294 USPATFULL  
 TITLE: Interleukin-4 stimulated T lymphocyte cell death for  
 the treatment of allergic disorders  
 INVENTOR(S): Lenardo, Michael J., Potomac, MD, United States  
 Boehme, Stefen A., McClean, VA, United States  
 Critchfield, Jeffrey, Bethesda, MD, United States  
 PATENT ASSIGNEE(S): The United States of America as represented by the  
 Department of Health and Human Services, Washington,  
 DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5935575		19990810
APPLICATION INFO.:	US 1994-348286		19941130 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-926290, filed on 10 Aug 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Housel, James C.		
ASSISTANT EXAMINER:	Krsek-Staples, Julie		
LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew LLP		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	4		
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	1567		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 37 OF 112 USPATFULL  
 ACCESSION NUMBER: 1999:88804 USPATFULL  
 TITLE: Vaccine comprising eimeria spp. gametocyte antigen  
 INVENTOR(S): Wallach, Michael, Jerusalem, Israel  
 Pugatsch, Thea, Maaleh Adumin, Israel  
 Mencher, David, Jerusalem, Israel  
 PATENT ASSIGNEE(S): Chilwalner, Tel-Aviv, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5932225		19990803
APPLICATION INFO.:	US 1995-552233		19951102 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-108763, filed on 17 Aug 1993, now patented, Pat. No. US 5496550 which is a continuation of Ser. No. US 1991-642219, filed on 16 Jan 1991, now abandoned which is a continuation-in-part of Ser. No. US 1989-310603, filed on 14 Feb 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-155245, filed on 12 Feb 1988, now abandoned which is a continuation-in-part of Ser. No. US 1986-896611, filed on 14 Aug 1986, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	CA 1987-544427	19870813
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Caputa, Anthony C.	
ASSISTANT EXAMINER:	Navarro, Mark	
LEGAL REPRESENTATIVE:	White, John P. Cooper & Dunham LLP	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	22 Drawing Figure(s); 19 Drawing Page(s)	
LINE COUNT:	2080	

L13 ANSWER 38 OF 112 USPATFULL  
 ACCESSION NUMBER: 1999:88797 USPATFULL  
 TITLE: Multideterminant peptides eliciting helper T-lymphocyte, cytotoxic T-lymphocyte, and neutralizing antibody responses against HIV-1  
 INVENTOR(S): Berzofsky, Jay A., Bethesda, MD, United States  
 Ahlers, Jeffrey D., Kensington, MD, United States  
 Pendelton, C. David, Bethesda, MD, United States  
 Nara, Peter, Frederick, MD, United States  
 Shirai, Mutsunori, Kagawa, Japan  
 PATENT ASSIGNEE(S): The United States of America as represented by the

Department of Health & Human Services, Washington, DC,  
United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5932218		19990803
APPLICATION INFO.:	US 1995-455625		19950531 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-60988, filed on 14 May 1993 which is a continuation-in-part of Ser. No. US 1992-847311, filed on 6 Mar 1992 which is a continuation-in-part of Ser. No. US 1988-148692, filed on 26 Jan 1988, now abandoned, said Ser. No. US 60988 which is a continuation-in-part of Ser. No. US 1991-751998, filed on 29 Aug 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Adams, Donald E.		
ASSISTANT EXAMINER:	Parkin, Jeffrey S.		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	49 Drawing Figure(s); 23 Drawing Page(s)		
LINE COUNT:	2307		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 39 OF 112 USPATFULL  
ACCESSION NUMBER: 1999:85253 USPATFULL  
TITLE: Hybrid **protein** between CS from plasmodium and HBsAg  
INVENTOR(S): De Wilde, Michel, Glabais, Belgium  
Cohen, Joseph, Brussels, Belgium  
PATENT ASSIGNEE(S): SmithKline Beecham Biologicals (s.a.), Rixensart, Belgium (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5928902		19990727
APPLICATION INFO.:	US 1996-760797		19961204 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-442612, filed on 17 May 1995, now abandoned which is a continuation of Ser. No. US 244085		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Minnifield, Nita		
LEGAL REPRESENTATIVE:	Baumeister, Kirk, Kinzig, Charles M.		
NUMBER OF CLAIMS:	43		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	22 Drawing Figure(s); 21 Drawing Page(s)		
LINE COUNT:	1346		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 40 OF 112 USPATFULL  
ACCESSION NUMBER: 1999:81550 USPATFULL  
TITLE: Recombinant fowlpox viruses and uses thereof  
INVENTOR(S): Cochran, Mark D., Carlsbad, CA, United States  
Junker, David E., San Diego, CA, United States  
PATENT ASSIGNEE(S): Syntro Corporation, Lenexa, KS, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5925358		19990720
APPLICATION INFO.:	US 1995-484575		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 1994-US2252, filed on 28 Feb 1994 which is a continuation of Ser. No. US		

1993-24156, filed on 26 Feb 1993, now abandoned  
DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Mosher, Mary E.  
LEGAL REPRESENTATIVE: White, John P. Cooper & Dunham LLP  
NUMBER OF CLAIMS: 24  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 11 Drawing Page(s)  
LINE COUNT: 3589  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 41 OF 112 USPATFULL  
ACCESSION NUMBER: 1999:78309 USPATFULL  
TITLE: Detection and therapy of lesions with  
biotin/avidin-metal chelating **protein**  
conjugates  
INVENTOR(S): Goldenberg, David Milton, Short Hills, NJ, United States  
Griffiths, Gary L., Morristown, NJ, United States  
Hansen, Hans J., Mystic Island, NJ, United States  
PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5922302		19990713
APPLICATION INFO.:	US 1995-440652		19950515 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-409960, filed on 23 Mar 1995, now patented, Pat. No. US 5736119 which is a continuation of Ser. No. US 1993-62662, filed on 17 May 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Achutamurthy, Ponnathapura		
ASSISTANT EXAMINER:	Ponnaluri, P.		
LEGAL REPRESENTATIVE:	Foley & Lardner		
NUMBER OF CLAIMS:	36		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1210		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 42 OF 112 USPATFULL  
ACCESSION NUMBER: 1999:30947 USPATFULL  
TITLE: Modulators of the interaction between ICAM-R and  
.alpha..sub.d /CD18  
INVENTOR(S): Gallatin, W. Michael, Seattle, WA, United States  
Vazeux, Rosemay, Seattle, WA, United States  
PATENT ASSIGNEE(S): ICOS Corporation, Bothell, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5880268		19990309
APPLICATION INFO.:	US 1995-483932		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-286754, filed on 5 Aug 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-102852, filed on 5 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-9266, filed on 22 Jan 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-894061, filed on 5 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889724, filed on 26 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-827689, filed		

on 27 Jan 1992, now abandoned  
DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Duffy, Patricia  
LEGAL REPRESENTATIVE: Marshall, O'Toole, Gerstein, Murray & Borun  
NUMBER OF CLAIMS: 1  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 39 Drawing Figure(s); 34 Drawing Page(s)  
LINE COUNT: 5823  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 43 OF 112 USPATFULL  
ACCESSION NUMBER: 1999:18933 USPATFULL  
TITLE: Method for monitoring an inflammatory disease state by  
detecting circulating ICAM-R  
INVENTOR(S): Gallatin, W. Michael, Seattle, WA, United States  
Vazeux, Rosemay, Seattle, WA, United States  
PATENT ASSIGNEE(S): ICOS Corporation, Bothell, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5869262		19990209
APPLICATION INFO.:	US 1995-473503		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-286754, filed on 5 Aug 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-102852, filed on 5 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-9266, filed on 22 Jan 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-894061, filed on 5 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889724, filed on 26 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-827689, filed on 27 Jan 1992, now abandoned		

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Hutzell, Paula K.  
ASSISTANT EXAMINER: Duffy, Patricia A.  
LEGAL REPRESENTATIVE: Marshall, O'Toole, Gerstein, Murray & Borun  
NUMBER OF CLAIMS: 4  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 39 Drawing Figure(s); 31 Drawing Page(s)  
LINE COUNT: 5859  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 44 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 1999:468161 SCISEARCH  
THE GENUINE ARTICLE: 205NV  
TITLE: Broadly distributed **T cell** reactivity,  
with no immunodominant loci, to the pre-erythrocytic  
antigen thrombospondin-related adhesive **protein**  
of **Plasmodium falciparum** in West  
Africans  
AUTHOR: Flanagan K L; Plebanski M (Reprint); Akinwunmi P; Lee E A  
M; Reece W H H; Robson K J H; Hill A V S; Pinder M  
CORPORATE SOURCE: JOHN RADCLIFFE HOSP, INST MOL MED, MOL IMMUNOL GRP,  
NUFFIELD DEPT MED, OXFORD OX3 9DU, ENGLAND (Reprint); JOHN  
RADCLIFFE HOSP, INST MOL MED, MOL IMMUNOL GRP, NUFFIELD  
DEPT MED, OXFORD OX3 9DU, ENGLAND; MRC LABS, FAJARA,  
GAMBIA; JOHN RADCLIFFE HOSP, INST MOL MED, MRC MOL  
HAEMATOL UNIT, NUFFIELD DEPT MED, OXFORD OX3 9DU, ENGLAND  
COUNTRY OF AUTHOR: ENGLAND; GAMBIA  
SOURCE: EUROPEAN JOURNAL OF IMMUNOLOGY, (JUN 1999) Vol. 29, No. 6,



pp. 1943-1954.  
Publisher: WILEY-V C H VERLAG GMBH, MUHLENSTRASSE 33-34,  
D-13187 BERLIN, GERMANY.  
ISSN: 0014-2980.

DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 65

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 45 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1999:146248 BIOSIS

DOCUMENT NUMBER: PREV199900146248

TITLE: Immunogenicity and in vitro protective efficacy of a recombinant multistage **Plasmodium falciparum** candidate vaccine.

AUTHOR(S): Shi, Ya Ping; Hasnain, Seyed E.; Sacchi, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A. (1)

CORPORATE SOURCE: (1) Div. Parasitic Diseases, Mol. Vaccine Sect., Cent. Dis. Control Prevention, Mail Stop F-12, 4770 Buford Highway, Chambee, GA 30341-3717 USA

SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (Feb. 16, 1999) Vol. 96, No. 4, pp. 1615-1620.  
ISSN: 0027-8424.

DOCUMENT TYPE: Article  
LANGUAGE: English

L13 ANSWER 46 OF 112 CABA COPYRIGHT 2002 CABI

ACCESSION NUMBER: 2000:40955 CABA

DOCUMENT NUMBER: 20000805312

TITLE: Pre-erythrocytic malaria vaccine: mechanisms of protective immunity and human vaccine trials

AUTHOR: Nardin, E.; Zavala, F.; Nussenzweig, V.; Nussenzweig, R. S.; Coluzzi, M. [EDITOR]; Bradley, D. [EDITOR]

CORPORATE SOURCE: Department of Medical and Molecular Parasitology, New York University School of Medicine, New York, NY 10010, USA.

SOURCE: Parassitologia (Roma), (1999) Vol. 41, No. 1/3, pp. 397-402. 39 ref.

Meeting Info.: The malaria challenge after one hundred years of malariology. Papers from the Malariology Centenary Conference, Accademia Nazionale dei Lincei, Roma, 16-19 November 1998.  
ISSN: 0048-2951

DOCUMENT TYPE: Conference Article; Journal  
LANGUAGE: English

L13 ANSWER 47 OF 112 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:364020 CAPLUS

DOCUMENT NUMBER: 136:84328

TITLE: Natural selection on apical membrane antigen-1 of **Plasmodium falciparum**

AUTHOR(S): Verra, F.; Hughes, A. L.

CORPORATE SOURCE: Department of Biology and Institute of Molecular Evolutionary Genetics, Pennsylvania State University, University Park, PA, 16801-5301, USA

SOURCE: Parassitologia (Roma, Italy) (1999), 41(1-3), 93-95  
CODEN: PSSGAR; ISSN: 0048-2951

PUBLISHER: Lambardo Editore  
DOCUMENT TYPE: Journal

LANGUAGE: English  
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 48 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:150739 USPATFULL  
TITLE: Alphavirus vector constructs  
INVENTOR(S): Dubensky, Jr., Thomas W., Rancho Sante Fe, CA, United States  
Polo, John M., San Diego, CA, United States  
Ibanez, Carlos E., San Diego, CA, United States  
Chang, Stephen M. W., San Diego, CA, United States  
Jolly, Douglas J., Leucadia, CA, United States  
Driver, David A., San Diego, CA, United States  
Belli, Barbara A., San Diego, CA, United States  
PATENT ASSIGNEE(S): Chiron Corporation, Emeryville, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5843723		19981201
APPLICATION INFO.:	US 1996-739167		19961030 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-404796, filed on 20 Mar 1995 which is a continuation-in-part of Ser. No. US 1995-376184, filed on 20 Jan 1995, now abandoned which is a continuation-in-part of Ser. No. US 1994-348472, filed on 30 Nov 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-198450, filed on 18 Feb 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-122791, filed on 15 Sep 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ketter, James		
ASSISTANT EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	McMasters, David D., Kruse, Norman J., Blackburn, Robert P.		
NUMBER OF CLAIMS:	47		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	37 Drawing Figure(s); 30 Drawing Page(s)		
LINE COUNT:	10318		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 49 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:143676 USPATFULL  
TITLE: GnRH-leukotoxin chimeras  
INVENTOR(S): Potter, Andrew A., Saskatoon, Canada  
Manns, John G., Saskatoon, Canada  
PATENT ASSIGNEE(S): University of Saskatchewan, Saskatoon, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5837268		19981117
APPLICATION INFO.:	US 1996-694865		19960809 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-387156, filed on 10 Feb 1995, now patented, Pat. No. US 5723129 which is a continuation-in-part of Ser. No. US 1992-960932, filed on 14 Oct 1992, now patented, Pat. No. US 5422110 which is a continuation-in-part of Ser. No. US 1991-779171, filed on 16 Oct 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Minnifield, Nita		

LEGAL REPRESENTATIVE: Robins & Associates  
NUMBER OF CLAIMS: 23  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 42 Drawing Figure(s); 37 Drawing Page(s)  
LINE COUNT: 2885  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 50 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:119133 USPATFULL  
TITLE: Protective 17 KDA malaria hepatic and erythrocytic stage immunogen and gene  
INVENTOR(S): Hoffman, Stephen L., Gaithersburg, MD, United States  
Charoenvit, Yupin, Silver Spring, MD, United States  
Hedstrom, Richard C., Gaithersburg, MD, United States  
Doolan, Denise L., Rockville, MD, United States  
PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of the Navy, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5814617		19980929
APPLICATION INFO.:	US 1994-319704		19941007 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Cunningham, Thomas M.		
LEGAL REPRESENTATIVE:	Spevack, A. David		
NUMBER OF CLAIMS:	11		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1590		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 51 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:119004 USPATFULL  
TITLE: Eukaryotic layered vector initiation systems  
INVENTOR(S): Dubensky, Jr., Thomas W., P.O. Box 675205, Rancho Sante Fe, CA, United States 92067  
Polo, John M., 1222 Reed Ave., Number 4, San Diego, CA, United States 92109  
Jolly, Douglas J., 277 Hillcrest Dr., Leucadia, CA, United States 92024  
Driver, David A., 5142 Biltmore St., San Diego, CA, United States 92117

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5814482		19980929
APPLICATION INFO.:	US 1996-739158		19961030 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-404796, filed on 15 Mar 1995 which is a continuation-in-part of Ser. No. US 1995-376184, filed on 18 Jan 1995, now abandoned which is a continuation-in-part of Ser. No. US 1994-348472, filed on 30 Nov 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-198450, filed on 18 Feb 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-122791, filed on 15 Sep 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ketter, James		
ASSISTANT EXAMINER:	Brusca, John S.		
LEGAL REPRESENTATIVE:	Seed & Berry, Kruse, Norman J., Blackburn, Robert P.		
NUMBER OF CLAIMS:	25		

EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 37 Drawing Figure(s); 30 Drawing Page(s)  
LINE COUNT: 10431  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 52 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:115830 USPATFULL  
TITLE: ICAM-related **protein** variants  
INVENTOR(S): Gallatin, W. Michael, Seattle, WA, United States  
Vazeux, Rosemay, Seattle, WA, United States  
PATENT ASSIGNEE(S): ICOS Corporation, Bothell, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5811517		19980922
APPLICATION INFO.:	US 1995-483389		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-286754, filed on 5 Aug 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-102852, filed on 5 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-9266, filed on 2 Dec 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-894061, filed on 5 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889724, filed on 26 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-827689, filed on 27 Jan 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Walsh, Stephen		
ASSISTANT EXAMINER:	Brown, Karen E.		
LEGAL REPRESENTATIVE:	Marshall, O'Toole, Gerstein, Murray & Borun		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	39 Drawing Figure(s); 34 Drawing Page(s)		
LINE COUNT:	5991		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 53 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:101402 USPATFULL  
TITLE: **Protein**  
INVENTOR(S): Schoenmakers, Johannes Gerardus Ghislain, WK Mook, Netherlands  
Konings, Rudolph Nicholaas Hendrik, GZ Guijk, Netherlands  
Moelans, Inge Irma Maria Dominique, SH Nijmegen, Netherlands  
PATENT ASSIGNEE(S): University of Nijmegen, Netherlands (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5798106		19980825
APPLICATION INFO.:	US 1995-450595		19950525 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-949645, filed on 4 Dec 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1990-12580	19900606
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hutzel, Paula K.	

ASSISTANT EXAMINER: Masood, Khalid  
LEGAL REPRESENTATIVE: Baumeister, Kirk, Kinzig, Charles M., Lentz, Edward T.  
NUMBER OF CLAIMS: 9  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
LINE COUNT: 782  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 54 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:101401 USPATFULL  
TITLE: DNA encoding a plasmodium 16kD **protein**  
INVENTOR(S): Schoenmakers, Johannes Gerardus Ghislain, Mook,  
Netherlands  
Konings, Rudolph Nicolaas Hendrik, Guijk, Netherlands  
Moelans, Inge Irma Maria Dominique, Nijmegen,  
Netherlands  
PATENT ASSIGNEE(S): University of Nijmegen, Netherlands (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5798105		19980825
APPLICATION INFO.:	US 1995-450065		19950525 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-949645, filed on 4 Dec 1992, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1990-12580	19900606
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Housel, James C.	
ASSISTANT EXAMINER:	Ryan, Verlene	
LEGAL REPRESENTATIVE:	Baumeister, Kirk, Kinzig, Charles M., Lentz, Edward T.	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	771	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 55 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:91872 USPATFULL  
TITLE: Alphavirus structural **protein** expression cassettes  
INVENTOR(S): Dubensky, Jr., Thomas W., Rancho Sante Fe, CA, United States  
Polo, John M., San Diego, CA, United States  
Ibanez, Carlos E., San Diego, CA, United States  
Chang, Stephen M. W., San Diego, CA, United States  
Jolly, Douglas J., Leucadia, CA, United States  
Driver, David A., San Diego, CA, United States  
PATENT ASSIGNEE(S): Chiron Corporation, Emeryville, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5789245		19980804
APPLICATION INFO.:	US 1996-741881		19961030 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-404796, filed on 15 Mar 1995 which is a continuation-in-part of Ser. No. US 1995-376184, filed on 20 Jan 1995, now abandoned which is a continuation-in-part of Ser. No. US 1994-348472, filed on 30 Nov 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-198450, filed		

on 18 Feb 1994, now abandoned which is a  
continuation-in-part of Ser. No. US 1993-122791, filed  
on 15 Sep 1993, now abandoned

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Ketter, James  
ASSISTANT EXAMINER: Brusca, John S.  
LEGAL REPRESENTATIVE: McMasters, David D., Kruse, Norman J., Blackburn,  
Robert P.  
NUMBER OF CLAIMS: 29  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 35 Drawing Figure(s); 30 Drawing Page(s)  
LINE COUNT: 10270  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 56 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:75369 USPATFULL  
TITLE: Method to identify compounds which modulate  
ICAM-related **protein** interactions  
INVENTOR(S): Gallatin, W. Michael, Seattle, WA, United States  
Vazeux, Rosemay, Seattle, WA, United States  
PATENT ASSIGNEE(S): ICOS Corporation, Bothell, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5773218		19980630
APPLICATION INFO.:	US 1995-482882		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-286754, filed on 5 Aug 1994 which is a continuation-in-part of Ser. No. US 1993-102852, filed on 5 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1993-9266, filed on 22 Jan 1993, now abandoned And Ser. No. US 1992-894061, filed on 5 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889724, filed on 26 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-827689, filed on 27 Jan 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Allen, Marianne P.		
ASSISTANT EXAMINER:	Brown, Karen E.		
LEGAL REPRESENTATIVE:	Marshall, O'Toole, Gerstein, Murray & Borun		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	39 Drawing Figure(s); 34 Drawing Page(s)		
LINE COUNT:	5498		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 57 OF 112 USPATFULL  
ACCESSION NUMBER: 1998:72589 USPATFULL  
TITLE: Heparin- and sulfatide binding peptides from the type I  
repeats of human thrombospondin and conjugates thereof  
INVENTOR(S): Roberts, David D., Bethesda, MD, United States  
Browning, Philip J., Brentwood, TN, United States  
Bryant, Joseph L., Bethesda, MD, United States  
Inman, John K., Bethesda, MD, United States  
Kruttsch, Henry C., Bethesda, MD, United States  
Guo, Nenghua, Gaithersburg, MD, United States  
PATENT ASSIGNEE(S): The United States of America as represented by the  
Department of Health and Human Services, Washington,  
DC, United States (U.S. government)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 5770563 19980623  
 APPLICATION INFO.: US 1995-487568 19950607 (8)  
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-215085, filed  
 on 21 Mar 1994, now abandoned which is a  
 continuation-in-part of Ser. No. US 1991-801812, filed  
 on 6 Dec 1991, now patented, Pat. No. US 5357041  
  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Tsang, Cecilia J.  
 ASSISTANT EXAMINER: Harle, Jennifer  
 LEGAL REPRESENTATIVE: Townsend and Townsend and Crew, LLP  
 NUMBER OF CLAIMS: 41  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 64 Drawing Figure(s); 63 Drawing Page(s)  
 LINE COUNT: 3518  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 58 OF 112 USPATFULL  
 ACCESSION NUMBER: 1998:68528 USPATFULL  
 TITLE: Malaria recombinant poxviruses  
 INVENTOR(S): Paoletti, Enzo, Delmar, NY, United States  
 de Taisne, Charles, Lyons, France  
 Tine, John A., Scotia, NY, United States  
 PATENT ASSIGNEE(S): Virogenetics Corporation, Troy, NY, United States (U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5766597		19980616
APPLICATION INFO.:	US 1994-257073		19940609 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-105483, filed on 12 Aug 1993, now patented, Pat. No. US 5494807 Ser. No. Ser. No. US 1994-178476, filed on 7 Jan 1994 Ser. No. Ser. No. US 1993-36217, filed on 24 Mar 1993, now patented, Pat. No. US 5364773 Ser. No. Ser. No. US 1993-102702, filed on 5 Aug 1993, now patented, Pat. No. US 5453364 And Ser. No. US 1993-75783, filed on 11 Jun 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-847951, filed on 6 Mar 1992, now abandoned Ser. No. Ser. No. US 1991-724109, filed on 1 Jul 1991, now abandoned Ser. No. Ser. No. US 1992-847977, filed on 3 Mar 1992, now abandoned And Ser. No. US 1992-852305, filed on 18 Mar 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-672183, filed on 20 Mar 1991, now abandoned , said Ser. No. US -105483 which is a continuation of Ser. No. US -847951 , said Ser. No. US -178476 which is a continuation of Ser. No. US -724109 , said Ser. No. US -36217 which is a continuation of Ser. No. US 1991-666056, filed on 7 Mar 1991, now abandoned , said Ser. No. US -102702 which is a continuation of Ser. No. US -847977		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Frommer Lawrence & Haug LLP, Frommer, William S., Kowalski, Thomas J.		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 41 Drawing Page(s)		
LINE COUNT:	4740		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 59 OF 112 USPATFULL  
 ACCESSION NUMBER: 1998:36340 USPATFULL  
 TITLE: Detection and therapy of lesions with  
 biotin/avidin-metal chelating **protein**  
 conjugates  
 INVENTOR(S): Goldenberg, David Milton, Short Hills, NJ, United  
 States  
 Griffiths, Gary L., Morristown, NJ, United States  
 Hansen, Hans J., Mystic Island, NJ, United States  
 PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5736119		19980407
APPLICATION INFO.:	US 1995-409960		19950323 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-62662, filed on 17 May 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Eisenschenk, Frank C.		
LEGAL REPRESENTATIVE:	Foley & Lardner		
NUMBER OF CLAIMS:	27		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1138		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 60 OF 112 USPATFULL  
 ACCESSION NUMBER: 1998:33796 USPATFULL  
 TITLE: Cloning and expression of **Plasmodium**  
**falciparum** transmission blocking target  
 antigen, Pfs230  
 INVENTOR(S): Williamson, Kim C., Rockville, MD, United States  
 Kaslow, David C., Kensington, MD, United States  
 PATENT ASSIGNEE(S): The United States of America as represented by the  
 Department of Health and Human Services, Washington,  
 DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5733772		19980331
APPLICATION INFO.:	US 1994-323170		19941013 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-10409, filed on 29 Jan 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Mosher, Mary E.		
LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew LLP		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1323		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 61 OF 112 USPATFULL  
 ACCESSION NUMBER: 1998:25220 USPATFULL  
 TITLE: Malaria treatments  
 INVENTOR(S): Playfair, John Hugh Lyon, London, United Kingdom  
 Taverne, Janice, London, United Kingdom  
 Bate, Clive Alan Winston, Oxford, United Kingdom  
 PATENT ASSIGNEE(S): British Technology Group Limited, London, United  
 Kingdom (non-U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5726166	19980310	
	WO 9315761	19930819	
APPLICATION INFO.:	US 1994-290706	19941205	(8)
	WO 1993-GB84	19930115	
		19941205	PCT 371 date
		19941205	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-3039	19920213
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Travers, Russell	
LEGAL REPRESENTATIVE:	Nixon & Vanderhye P.C.	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 12 Drawing Page(s)	
LINE COUNT:	1848	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 62 OF 112 USPATFULL  
 ACCESSION NUMBER: 1998:14497 USPATFULL  
 TITLE: Solid fat nanoemulsions as vaccine delivery vehicles  
 INVENTOR(S): Anselem, Shimon, Rehovot, Israel  
 Lowell, George H., Baltimore, MD, United States  
 Aviv, Haim, Rehovot, Israel  
 Friedman, Doron, Carmei Yosef, Israel  
 PATENT ASSIGNEE(S): Pharmos Corporation, New York, NY, United States (U.S. corporation)  
 The United States of America as represented by the Secretary of the Army, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5716637		19980210
	WO 9426255		19941124
APPLICATION INFO.:	US 1995-553350		19951116 (8)
	WO 1994-US5589		19940518
			19951116 PCT 371 date
			19951116 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-63613, filed on 18 May 1993, now patented, Pat. No. US 5576016		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kishore, Gollamudi S.		
LEGAL REPRESENTATIVE:	Pennie & Edmonds		
NUMBER OF CLAIMS:	44		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	1699		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 63 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 ACCESSION NUMBER: 1998:395916 BIOSIS  
 DOCUMENT NUMBER: PREV199800395916  
 TITLE: Mapping of specific and promiscuous HLA-DR-restricted T-cell epitopes on the Plasmodium falciparum 27-kilodalton sexual stage-specific antigen.  
 AUTHOR(S): Contreras, Carmen E.; Ploton, Isabelle N.; Siliciano, Robert F.; Karp, Christopher L.; Viscidi, Raphael; Kumar, Nirbhay (1)

CORPORATE SOURCE: (1) Dep. Mol. Microbiol. Immunol., Johns Hopkins Univ. Sch. Hygiene Publ. Health, 615 N. Wolfe St., Baltimore, MD 21205 USA  
 SOURCE: Infection and Immunity, (Aug., 1998) Vol. 66, No. 8, pp. 3579-3590.  
 ISSN: 0019-9567.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English

L13 ANSWER 64 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1998:217420 BIOSIS  
 DOCUMENT NUMBER: PREV199800217420  
 TITLE: **Plasmodium falciparum** polyoximes:  
 Highly immunogenic synthetic vaccines constructed by chemoselective ligation of repeat B-cell **epitopes** and a universal **T-cell** epitope of CS **protein**.

AUTHOR(S): Nardin, E. H. (1); Calvo-Calle, J. M.; Oliveira, G. A.; Clavijo, P.; Nussenzweig, R.; Simon, R.; Zeng, W.; Rose, K.  
 CORPORATE SOURCE: (1) Dep. Med. Molecular Parasitology, New York Univ. Sch. Med., 341 E. 25th St., New York, NY 10010 USA  
 SOURCE: Vaccine, (April, 1998) Vol. 16, No. 6, pp. 590-600.  
 ISSN: 0264-410X.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English

L13 ANSWER 65 OF 112 USPATFULL

ACCESSION NUMBER: 97:117899 USPATFULL  
 TITLE: Method of reducing immunogenicity  
 INVENTOR(S): Goldenberg, David M., Short Hills, NJ, United States  
 PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5698405		19971216
APPLICATION INFO.:	US 1995-456393		19950601 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1992-933982, filed on 21 Aug 1992, now patented, Pat. No. US 5525338, issued on 11 Jun 1996 which is a continuation-in-part of Ser. No. US 1988-167077, filed on 11 Mar 1988, now patented, Pat. No. US 5101827, issued on 7 Apr 1992 which is a continuation of Ser. No. US 1985-751877, filed on 5 Jul 1985, now patented, Pat. No. US 4735210, issued on 5 Apr 1988		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Spiegel, Carol A.		
LEGAL REPRESENTATIVE:	Foley & Lardner		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1093		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 66 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)

ACCESSION NUMBER: 97:679233 SCISEARCH  
 THE GENUINE ARTICLE: XU735  
 TITLE: **T cell** immunity in malaria  
 AUTHOR: Kabilan L (Reprint)  
 CORPORATE SOURCE: MALARIA RES CTR, DELHI, INDIA (Reprint).  
 COUNTRY OF AUTHOR: INDIA  
 SOURCE: INDIAN JOURNAL OF MEDICAL RESEARCH, (AUG 1997) Vol. 106, pp. 130-148.  
 Publisher: INDIAN COUNCIL MEDICAL RES, PO BOX 4508 ANSARI

NAGAR, NEW DELHI 110029, INDIA.  
ISSN: 0971-5916.  
DOCUMENT TYPE: General Review; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 96  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 67 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1998:257713 BIOSIS  
DOCUMENT NUMBER: PREV199800257713  
TITLE: Immune evasion in malaria: Altered peptide ligands of the circumsporozoite **protein**.  
AUTHOR(S): Plebanski, M.; Lee, E. A. M.; Hill, A. V. S.  
CORPORATE SOURCE: Nuffield Dep. Med., Inst. Molecular Med., Univ. Oxford, John Radcliff Hosp., Oxford OX3 UK  
SOURCE: Parasitology, (1997) Vol. 115, No. SUPPL., pp. S55-S66. ISSN: 0031-1820.  
DOCUMENT TYPE: General Review  
LANGUAGE: English

L13 ANSWER 68 OF 112 MEDLINE  
ACCESSION NUMBER: 1998013242 MEDLINE  
DOCUMENT NUMBER: 98013242 PubMed ID: 9352001  
TITLE: T- and B-cell responses of malaria immune individuals to synthetic peptides corresponding to non-repeat sequences in the N-terminal region of the **Plasmodium falciparum** antigen Pf155/RESA.  
AUTHOR: Kulane A; Siddique A B; Perlmann H; Ahlborg N; Roussilhon C; Tall A; Dieye A; Perlmann P; Troye-Blomberg M  
CORPORATE SOURCE: Department of Immunology, Stockholm University, Sweden.. asli@imm2.su.se  
SOURCE: ACTA TROPICA, (1997 Oct 14) 68 (1) 37-51. Journal code: 23A; 0370374. ISSN: 0001-706X.  
PUB. COUNTRY: Netherlands  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199712  
ENTRY DATE: Entered STN: 19980109  
Last Updated on STN: 19980109  
Entered Medline: 19971204

L13 ANSWER 69 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1997:254752 BIOSIS  
DOCUMENT NUMBER: PREV199799553955  
TITLE: Immunogenicity of synthetic peptides containing multiple **epitopes** from malaria antigens.  
AUTHOR(S): Bharadwaj, A.; Sharma, P.; Sailaja, V. N.; Joshi, S.; Chauhan, V. S.  
CORPORATE SOURCE: Int. Centre Genetic Eng. and Biotechnol., Aruna Asaf Ali Marg, New Delhi 110 067 India  
SOURCE: Annals of Tropical Medicine and Parasitology, (1997) Vol. 91, No. SUPPL. 1, pp. S19-S20. ISSN: 0003-4983.  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: English

L13 ANSWER 70 OF 112 CABA COPYRIGHT 2002 CABI  
ACCESSION NUMBER: 97:145458 CABA  
DOCUMENT NUMBER: 970805655  
TITLE: Immunogenicity of synthetic peptides containing multiple **epitopes** from malaria antigens  
AUTHOR: Bharadwaj, A.; Sharma, P.; Sailaja, V. N.; Joshi,

CORPORATE SOURCE: S.; Chauhan, V. S.; Jepsen, S. [EDITOR]  
International Centre for Genetic Engineering and  
Biotechnology, Aruna Asaf Ali Marg, New Delhi 110  
067, India.

SOURCE: Annals of Tropical Medicine and Parasitology, (1997)  
Vol. 91, No. supplement 1, pp. S19-S20.  
Meeting Info.: Fifth CEC malaria contract holders'  
meeting, Copenhagen, Denmark, 29-31 May 1995.  
ISSN: 0003-4983

DOCUMENT TYPE: Journal

LANGUAGE: English

L13 ANSWER 71 OF 112 USPATFULL  
ACCESSION NUMBER: 96:108824 USPATFULL  
TITLE: Cloning and expression of toxoplasma antigens and use  
of recombinant antigens  
INVENTOR(S): McDonald, Peter J., Belair, Australia  
Johnson, Alan M., East Roseville, Australia  
PATENT ASSIGNEE(S): The Flinders University of South Australia, South  
Australia, Australia (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5578453		19961126
	WO 9202624		19920220
APPLICATION INFO.:	US 1993-972481		19930412 (7)
	WO 1991-AU347		19910809
			19930412 PCT 371 date
			19930412 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1990-1679	19900810
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Scheiner, Toni R.	
LEGAL REPRESENTATIVE:	Birch, Stewart, Kolasch & Birch, LLP	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	6	
NUMBER OF DRAWINGS:	43 Drawing Figure(s); 15 Drawing Page(s)	
LINE COUNT:	1266	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 72 OF 112 USPATFULL  
ACCESSION NUMBER: 96:103881 USPATFULL  
TITLE: Immunogenic constructs comprising b-cell and t  
-cell epitopes on common carrier  
INVENTOR(S): Cheronis, John C., Lakewood, CO, United States  
Coeshott, Claire, Denver, CO, United States  
PATENT ASSIGNEE(S): Coretech, Inc., Denver, CO, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5573916		19961112
APPLICATION INFO.:	US 1994-246278		19940519 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Smith, Lynette F.		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 10 Drawing Page(s)		
LINE COUNT:	736		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 73 OF 112 USPATFULL  
ACCESSION NUMBER: 96:82450 USPATFULL  
TITLE: Methods and vaccines comprising surface-active copolymers  
INVENTOR(S): Hunter, Robert L., Tucker, GA, United States  
PATENT ASSIGNEE(S): Emory University, Atlanta, GA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5554372		19960910
APPLICATION INFO.:	US 1995-420333		19950411 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-133760, filed on 7 Oct 1993, now abandoned which is a continuation of Ser. No. US 1991-716807, filed on 21 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1990-544831, filed on 27 Jun 1990, now abandoned which is a continuation-in-part of Ser. No. US 1989-449086, filed on 8 Dec 1989, now abandoned which is a continuation of Ser. No. US 1989-341315, filed on 21 Apr 1989, now abandoned which is a continuation of Ser. No. US 1988-208335, filed on 17 Jun 1988, now abandoned which is a continuation-in-part of Ser. No. US 1987-75187, filed on 16 Jul 1987, now abandoned which is a continuation-in-part of Ser. No. US 1986-909964, filed on 22 Sep 1986, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Housel, James C.		
ASSISTANT EXAMINER:	Shaver, Jennifer		
LEGAL REPRESENTATIVE:	Jones & Askew		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	24 Drawing Figure(s); 17 Drawing Page(s)		
LINE COUNT:	2669		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 74 OF 112 USPATFULL  
ACCESSION NUMBER: 96:70365 USPATFULL  
TITLE: Plasmodium merozoite rhoptries antigenic polypeptides  
INVENTOR(S): Ridley, Robert G., Edinburgh, Great Britain  
Scaife, John G., Edinburgh, Great Britain  
PATENT ASSIGNEE(S): Hoffman-La Roche Inc., Nutley, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5543323		19960806
APPLICATION INFO.:	US 1994-340514		19941116 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-86416, filed on 1 Jul 1993, now abandoned which is a continuation of Ser. No. US 1992-992988, filed on 18 Dec 1992, now abandoned which is a continuation of Ser. No. US 1990-489312, filed on 5 Mar 1990, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1989-5857	19890314
	GB 1989-19064	19890822
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Mosher, Mary E.	

LEGAL REPRESENTATIVE: Gould, George M., Epstein, William H., Picut, Catherine A.  
NUMBER OF CLAIMS: 6  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)  
LINE COUNT: 1344  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 75 OF 112 USPATFULL  
ACCESSION NUMBER: 96:50642 USPATFULL  
TITLE: Detection and therapy of lesions with biotin/avidin conjugates  
INVENTOR(S): Goldenberg, David M., Short Hills, NJ, United States  
PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5525338		19960611
APPLICATION INFO.:	US 1992-933982		19920821 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Kim, Kay K. A.		
LEGAL REPRESENTATIVE:	Foley & Lardner		
NUMBER OF CLAIMS:	48		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1456		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 76 OF 112 USPATFULL  
ACCESSION NUMBER: 96:25055 USPATFULL  
TITLE: Monoclonal antibodies to a continuous and cross-reactive epitope and an isolated **protein** of a sexual stage of *P. falciparum*  
INVENTOR(S): Kumar, Nirbhay, Bethesda, MD, United States  
PATENT ASSIGNEE(S): The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5502168		19960326
APPLICATION INFO.:	US 1993-120225		19930914 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-779494, filed on 24 Oct 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Adams, Donald E.		
LEGAL REPRESENTATIVE:	Cushman, Darby & Cushman		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	862		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 77 OF 112 USPATFULL  
ACCESSION NUMBER: 96:18825 USPATFULL  
TITLE: Method of reducing the output of *Eimeria* oocysts from a newborn chick  
INVENTOR(S): Wallach, Michael, Jerusalem, Israel  
Pugatsch, Thea, Maaleh Adumin, Israel  
Mencher, David, Jerusalem, Israel  
PATENT ASSIGNEE(S): Chilwalner, Tel-Aviv, Israel (non-U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 5496550 19960305  
 APPLICATION INFO.: US 1993-108763 19930817 (8)  
 RELATED APPLN. INFO.: Continuation of Ser. No. US 1991-642219, filed on 16 Jan 1991, now abandoned which is a continuation-in-part of Ser. No. US 1989-310603, filed on 14 Feb 1989, now abandoned which is a continuation-in-part of Ser. No. US 1988-155245, filed on 12 Feb 1988, now abandoned which is a continuation-in-part of Ser. No. US 1986-896611, filed on 14 Aug 1986, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	CA 1987-544427	19870813
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Sidberry, Hazel F.	
LEGAL REPRESENTATIVE:	White, John P.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	22 Drawing Figure(s); 19 Drawing Page(s)	
LINE COUNT:	2051	

L13 ANSWER 78 OF 112 USPATFULL  
 ACCESSION NUMBER: 96:3496 USPATFULL  
 TITLE: Detection and therapy of lesions with biotin/avidin polymer conjugates  
 INVENTOR(S): Griffiths, Gary L., Morristown, NJ, United States  
 PATENT ASSIGNEE(S): Immunomedics, Inc., Morris Plains, NJ, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5482698		19960109
APPLICATION INFO.:	US 1993-51144		19930422 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wu, Shean		
ASSISTANT EXAMINER:	Chapman, Lara E.		
LEGAL REPRESENTATIVE:	Foley & Lardner		
NUMBER OF CLAIMS:	43		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1738		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 79 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
 ACCESSION NUMBER: 96:489104 SCISEARCH  
 THE GENUINE ARTICLE: UT657  
 TITLE: NATURAL IMMUNE-RESPONSE TO THE C-TERMINAL 19-KILODALTON DOMAIN OF **PLASMODIUM-FALCIPARUM** MEROZOITE SURFACE **PROTEIN-1**  
 AUTHOR: SHI Y P; SAYED U; QARI S H; ROBERTS J M; UDHAYAKUMAR V; OLOO A J; HAWLEY W A; KASLOW D C; NAHLEN B L; LAL A A (Reprint)  
 CORPORATE SOURCE: NCID, CTR DIS CONTROL & PREVENT, MOL VACCINE SECT, DIV PARASIT DIS, MAIL STOP F-12, 4770 BUFORD HWY, CHAMBLEE, GA, 30341 (Reprint); NCID, CTR DIS CONTROL & PREVENT, MOL VACCINE SECT, DIV PARASIT DIS, CHAMBLEE, GA, 30341; KENYA GOVT MED RES CTR, VECTOR BIOL & CONTROL RES CTR, KISUMU, KENYA; NIAID, MALARIA RES LAB, NIH, BETHESDA, MD, 20892  
 COUNTRY OF AUTHOR: USA; KENYA  
 SOURCE: INFECTION AND IMMUNITY, (JUL 1996) Vol. 64, No. 7, pp. 2716-2723.  
 ISSN: 0019-9567.

DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 28  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 80 OF 112 MEDLINE  
ACCESSION NUMBER: 96406691 MEDLINE  
DOCUMENT NUMBER: 96406691 PubMed ID: 8810805  
TITLE: Current state and problems of the development of malaria vaccine.  
AUTHOR: Tanabe K  
CORPORATE SOURCE: Laboratory of Biology, Faculty of Technology, Osaka Institute of Technology.  
SOURCE: NIPPON RINSHO. JAPANESE JOURNAL OF CLINICAL MEDICINE, (1996 Aug) 54 (8) 2252-60. Ref: 18  
Journal code: KIM; 0420546. ISSN: 0047-1852.  
PUB. COUNTRY: Japan  
Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LANGUAGE: Japanese  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199612  
ENTRY DATE: Entered STN: 19970128  
Last Updated on STN: 19970128  
Entered Medline: 19961203

L13 ANSWER 81 OF 112 CABA COPYRIGHT 2002 CABI  
ACCESSION NUMBER: 97:13193 CABA  
DOCUMENT NUMBER: 970800457  
TITLE: Immune responses in congenic mice to multiple antigen peptides based on defined **epitopes** from the malaria antigen Pf332  
AUTHOR: Ahlborg, N.; Andersson, R.; Perlmann, P.; Berzins, K.  
CORPORATE SOURCE: Department of Immunology, Stockholm University, Stockholm, S-106 91 Stockholm, Sweden.  
SOURCE: Immunology, (1996) Vol. 88, No. 4, pp. 630-635. 30 ref.  
ISSN: 0019-2805  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L13 ANSWER 82 OF 112 CABA COPYRIGHT 2002 CABI  
ACCESSION NUMBER: 96:54434 CABA  
DOCUMENT NUMBER: 962002380  
TITLE: Identification of T and B cell **epitopes** recognized by humans in the C-terminal 42-kDa domain of the **Plasmodium falciparum** merozoite surface **protein** (MSP)-1  
AUTHOR: Udhayakumar, V.; Anyona, D.; Kariuki, S.; Shi YaPing; Bloland, P. B.; Branch, O. H.; Weiss, W.; Nahlen, B. L.; Kaslow, D. C.; Lal, A. A.  
CORPORATE SOURCE: Centers for Disease Control and Prevention, 4770 Buford Hwy., Chamblee, GA 30341-3724, USA.  
SOURCE: Journal of Immunology (Baltimore), (1995) Vol. 154, No. 11, pp. 6022-6030. 28 ref.  
ISSN: 0022-1767  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L13 ANSWER 83 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 95:145559 SCISEARCH



THE GENUINE ARTICLE: QG755  
 TITLE: HUMAN IMMUNE RECOGNITION OF RECOMBINANT **PROTEINS**  
 REPRESENTING DISCRETE DOMAINS OF THE **PLASMODIUM-**  
**FALCIPARUM** GAMETE SURFACE **PROTEIN**,  
 PFS230  
 AUTHOR: RILEY E M (Reprint); WILLIAMSON K C; GREENWOOD B M; KASLOW  
 D C  
 CORPORATE SOURCE: UNIV EDINBURGH, INST CELL ANIM & POPULAT BIOL, DIV BIOL  
 SCI, W MAINS RD, EDINBURGH EH9 3JT, MIDLOTHIAN, SCOTLAND  
 (Reprint); NIAID, MALARIA RES LAB, MOLEC VACCINE SECT,  
 BETHESDA, MD, 20892; MRC LABS, FAJARA, GAMBIA  
 COUNTRY OF AUTHOR: SCOTLAND; USA; GAMBIA  
 SOURCE: PARASITE IMMUNOLOGY, (JAN 1995) Vol. 17, No. 1, pp. 11-19.  
 ISSN: 0141-9838.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 26  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 84 OF 112 USPATFULL  
 ACCESSION NUMBER: 94:64243 USPATFULL  
 TITLE: Detection and treatment of infections with  
 immunoconjugates  
 INVENTOR(S): Goldenberg, M. David, Short Hills, NJ, United States  
 PATENT ASSIGNEE(S): Immunomedics, Morris Plains, NJ, United States (U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5332567		19940726
APPLICATION INFO.:	US 1993-37659		19930322 (8)
DISCLAIMER DATE:	20070515		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-840591, filed on 18 Feb 1992, now abandoned which is a continuation of Ser. No. US 1989-399566, filed on 24 Aug 1989, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Waddell, Frederick E.		
ASSISTANT EXAMINER:	Hook, Gregory		
LEGAL REPRESENTATIVE:	Foley & Lardner		
NUMBER OF CLAIMS:	29		
EXEMPLARY CLAIM:	20		
LINE COUNT:	1460		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 85 OF 112 CABA COPYRIGHT 2002 CABI  
 ACCESSION NUMBER: 95:180916 CABA  
 DOCUMENT NUMBER: 952006910  
 TITLE: Induction of antibodies to the **Plasmodium**  
**falciparum** merozoite surface **protein**  
-1 (MSP1) by cross-priming with heterologous MSP1s  
 AUTHOR: Hui, G. S. N.; Hashimoto, A. C.; Nikaido, C. M.;  
 Choi, J.; Chang, S. P.  
 CORPORATE SOURCE: Department of Tropical Medicine, University of  
 Hawaii, 3675 Kilauea Avenue, Honolulu, HI 96816,  
 USA.  
 SOURCE: Journal of Immunology (Baltimore), (1994) Vol. 153,  
 No. 3, pp. 1195-1200. 15 ref.  
 ISSN: 0022-1767  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L13 ANSWER 86 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)

ACCESSION NUMBER: 94:328421 SCISEARCH  
 THE GENUINE ARTICLE: NB852  
 TITLE: MALARIA VACCINES - CURRENT STATUS  
 AUTHOR: CORRADIN G (Reprint); ENGERS H; TRIGG P I  
 CORPORATE SOURCE: UNIV LAUSANNE, INST BIOCHEM, CHEMIN BOVERESSES 155,  
 CH-1066 EPALINGES, SWITZERLAND (Reprint); WHO, SPECIAL  
 PROGRAMME RES & TRAINING TROP DIS, WORLD BANK, UNDP,  
 CH-1211 GENEVA 27, SWITZERLAND; WHO, DIV CONTROL TROP DIS,  
 MALARIA UNIT, CH-1211 GENEVA 27, SWITZERLAND  
 COUNTRY OF AUTHOR: SWITZERLAND  
 SOURCE: CLINICAL IMMUNOTHERAPEUTICS, (MAR 1994) Vol. 1, No. 3, pp.  
 191-198.  
 ISSN: 1172-7039.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: CLIN  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 40  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 87 OF 112 CABA COPYRIGHT 2002 CABI

ACCESSION NUMBER: 95:131532 CABA  
 DOCUMENT NUMBER: 952002513  
 TITLE: **Plasmodium falciparum** liver  
 stage antigen-1 is well conserved and contains  
 potent B and T cell determinants  
 AUTHOR: Fidock, D. A.; Gras-Masse, H.; Lepers, J. P.;  
 Brahimi, K.; Benmohamed, L.; Mellouk, S.;  
 Guerin-Marchand, C.; Londono, A.; Raharimalala, L.;  
 Meis, J. F. G. M.; Langsley, G.; Roussilhon, C.;  
 Tartar, A.; Druilhe, P.  
 CORPORATE SOURCE: Bio-Medical Parasitology Laboratory, Pasteur  
 Institute, Paris, France.  
 SOURCE: Journal of Immunology (Baltimore), (1994) Vol. 153,  
 No. 1, pp. 190-204. 58 ref.  
 ISSN: 0022-1767  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L13 ANSWER 88 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1994:359349 BIOSIS  
 DOCUMENT NUMBER: PREV199497372349  
 TITLE: B- and T-cell responses in congenic  
 mice to repeat sequences of the malaria antigen Pf332:  
 Effects of the number of repeats.  
 AUTHOR(S): Ahlborg, Niklas (1); Andersson, Roland; Stahl, Stefan;  
 Hansson, Marianne; Andersson, Ingegard; Perlmann, Peter;  
 Berzins, Klavs  
 CORPORATE SOURCE: (1) Dep. Immunol., Stockholm Univ., S-10691 Stockholm  
 Sweden  
 SOURCE: Immunology Letters, (1994) Vol. 40, No. 2, pp. 147-155.  
 ISSN: 0165-2478.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English

L13 ANSWER 89 OF 112 CABA COPYRIGHT 2002 CABI

ACCESSION NUMBER: 95:124753 CABA  
 DOCUMENT NUMBER: 950805829  
 TITLE: A novel merozoite surface antigen of  
**Plasmodium falciparum** (MSP-3)  
 identified by cellular-antibody cooperative  
 mechanism antigenicity and biological activity of  
 antibodies  
 AUTHOR: Oeuvray, C.; Bouharoun-Tayoun, H.; Gras-Masse, H.;  
 Iepers, J. P.; Ralamboranto, L.; Tartar, A.;

CORPORATE SOURCE: Druilhe, P.; Herrera, S. [EDITOR]; Jepsen, S. [EDITOR]  
 Laboratoire de Parasitologie Medicale, Institut Pasteur, 28 rue du Docteur Roux, 75015 Paris, France.  
 SOURCE: Memorias do Instituto Oswaldo Cruz, (1994) Vol. 89, No. Suppl. II, pp. 77-80. 12 ref.  
 Meeting Info.: Proceedings of the CEC malaria contract holders meeting & CEC/Latin America malaria conference, 5-11 September, 1993, Cali, Colombia.  
 DOCUMENT TYPE: Conference Article; Journal  
 LANGUAGE: English

L13 ANSWER 90 OF 112 USPATFULL  
 ACCESSION NUMBER: 93:61176 USPATFULL  
 TITLE: Malaria antigen  
 INVENTOR(S): Dziegiel, Morten, Roskilde, Denmark  
 Borre, Martin, Copenhagen, Denmark  
 Jepsen, Soren, Overisse, Belgium  
 Vuust, Jens, Dragor, Denmark  
 Rieneck, Klaus, Copenhagen, Denmark  
 Wind, Annette, Farum, Denmark  
 Jakobsen, Palle H., Koge, Denmark  
 PATENT ASSIGNEE(S): Statens Seruminstitut, Copenhagen, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5231168		19930727
APPLICATION INFO.:	US 1989-409658		19890918 (7)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1989-318885, filed on 3 Mar 1989, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1988-5191	19880916
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Nucker, Christine M.	
ASSISTANT EXAMINER:	Sidberry, H.	
LEGAL REPRESENTATIVE:	Cooper, Iver P.	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	20 Drawing Figure(s); 21 Drawing Page(s)	
LINE COUNT:	3314	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L13 ANSWER 91 OF 112 USPATFULL  
 ACCESSION NUMBER: 93:59259 USPATFULL  
 TITLE: Multiple antigen peptide system  
 INVENTOR(S): Tam, James P., New York, NY, United States  
 PATENT ASSIGNEE(S): The Rockefeller University, New York, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5229490		19930720
APPLICATION INFO.:	US 1990-631185		19901220 (7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1989-336845, filed on 12 Apr 1989, now abandoned which is a continuation of Ser. No. US 1987-68840, filed on 30 Jun 1987, now abandoned which is a continuation-in-part of Ser. No. US 1987-47204, filed on 6 May 1987, now abandoned		
DOCUMENT TYPE:	Utility		

FILE SEGMENT: Granted  
PRIMARY EXAMINER: Nucker, Christine M.  
ASSISTANT EXAMINER: Kim, Kay K.  
LEGAL REPRESENTATIVE: Wyatt, Gerber, Burke and Badie  
NUMBER OF CLAIMS: 33  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 10 Drawing Page(s)  
LINE COUNT: 1262  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 92 OF 112 USPATFULL  
ACCESSION NUMBER: 93:22796 USPATFULL  
TITLE: Synthetic peptides useful as universal carriers for the preparation of immunogenic conjugates and their use in the development of synthetic vaccines  
INVENTOR(S): Bianchi, Elisabetta, Rome, Italy  
Pessi, Antonello, Rome, Italy  
Corradin, Giampietro, Lausanne, Switzerland  
PATENT ASSIGNEE(S): Eniricerche S.p.A., Milan, Italy (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5196512		19930323
APPLICATION INFO.:	US 1990-610525		19901108 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	IT 1989-22355	19891110
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Nucker, Christine M.	
ASSISTANT EXAMINER:	Kim, Kay K.	
LEGAL REPRESENTATIVE:	Shea & Gould	
NUMBER OF CLAIMS:	1	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 3 Drawing Page(s)	
LINE COUNT:	821	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 93 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 94:160947 SCISEARCH  
THE GENUINE ARTICLE: BZ60L  
TITLE: DEVELOPMENTS WITH ANTIMALARIAL VACCINES  
AUTHOR: HOLDER A A (Reprint)  
CORPORATE SOURCE: NATL INST MED RES, DIV PARASITOL, LONDON NW7 1AA, ENGLAND (Reprint)  
COUNTRY OF AUTHOR: ENGLAND  
SOURCE: ANNALS OF THE NEW YORK ACADEMY OF SCIENCES, (1993) Vol. 700, pp. 7-21.  
ISSN: 0077-8923.  
DOCUMENT TYPE: General Review; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 115

L13 ANSWER 94 OF 112 USPATFULL  
ACCESSION NUMBER: 92:38305 USPATFULL  
TITLE: Vaccines for the malaria circumsporozoite protein  
INVENTOR(S): Brey, III, Robert N., Rochester, NY, United States  
Majarian, William R., Pittsford, NY, United States  
Pillai, Subramonia, Rochester, NY, United States  
Hockmeyer, Wayne T., Pittsford, NY, United States  
PATENT ASSIGNEE(S): Praxis Biologics, Inc., Rochester, NY, United States

(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5112749		19920512
APPLICATION INFO.:	US 1987-104735		19871002 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ellis, Joan		
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds		
NUMBER OF CLAIMS:	50		
EXEMPLARY CLAIM:	22		
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 17 Drawing Page(s)		
LINE COUNT:	2274		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 95 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1993:75061 BIOSIS  
DOCUMENT NUMBER: PREV199395039561  
TITLE: Antibodies and reactive **T cells** against the malaria heat-shock **protein** Pf72/Hsp70-1 and derived peptides in individuals continuously exposed to **Plasmodium falciparum**.  
AUTHOR(S): Behr, Charlotte (1); Sarthou, Jean-Louis; Rogier, Christophe; Trape, Jean-Francois; Dat, Myoura Huynh Quan; Michel, Jean-Claude; Aribot, Georgette; Dieye, Alioune; Claverie, Jean-Michel; et al.  
CORPORATE SOURCE: (1) Unite de Parasitologie Experimentale, Inst. Pasteur, 25-28 rue du Docteur Roux, 75724 Paris, Cedex 15 France  
SOURCE: Journal of Immunology, (1992) Vol. 149, No. 10, pp. 3321-3330.  
ISSN: 0022-1767.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L13 ANSWER 96 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 92:616776 SCISEARCH  
THE GENUINE ARTICLE: JT982  
TITLE: RECOGNITION OF DIFFERENT DOMAINS OF THE **PLASMODIUM -FALCIPARUM** CS **PROTEIN** BY THE SERA OF NATURALLY INFECTED INDIVIDUALS COMPARED WITH THOSE OF SPOROZOITE-IMMUNIZED VOLUNTEERS  
AUTHOR: CALLE J M C; NARDIN E H; CLAVIJO P; BOUDIN C; STUBER D; TAKACS B; NUSSENZWEIG R S; COCHRANE A H (Reprint)  
CORPORATE SOURCE: NYU, SCH MED, DEPT MED & MOLEC PARASITOL, 341 E 25TH ST, NEW YORK, NY, 10010; UNIV GRENoble, DEPT PARASITOL, GRENoble, FRANCE; F HOFFMANN LA ROCHE & CO LTD, PHARMACEUT RES NEW TECHNOL, CH-4002 BASEL, SWITZERLAND  
COUNTRY OF AUTHOR: USA; FRANCE; SWITZERLAND  
SOURCE: JOURNAL OF IMMUNOLOGY, (15 OCT 1992) Vol. 149, No. 8, pp. 2695-2701.  
ISSN: 0022-1767.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 37  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 97 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 92:353981 SCISEARCH  
THE GENUINE ARTICLE: HX421  
TITLE: PROTECTION OF AOTUS MONKEYS FROM MALARIA INFECTION BY IMMUNIZATION WITH RECOMBINANT HYBRID **PROTEINS**  
AUTHOR: KNAPP B (Reprint); HUNDT E; ENDERS B; KUPPER H A

CORPORATE SOURCE: BEHRINGWERKE AG, RES LABS, W-3550 MARBURG, GERMANY  
(Reprint)  
COUNTRY OF AUTHOR: GERMANY  
SOURCE: INFECTION AND IMMUNITY, (JUN 1992) Vol. 60, No. 6, pp.  
2397-2401.  
ISSN: 0019-9567.  
DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 25  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 98 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 92:630390 SCISEARCH  
THE GENUINE ARTICLE: JV012  
TITLE: ADJUVANT-DEPENDENT IMMUNE-RESPONSE TO MALARIAL  
TRANSMISSION-BLOCKING VACCINE CANDIDATE ANTIGENS  
AUTHOR: RAWLINGS D J; KASLOW D C (Reprint)  
CORPORATE SOURCE: NIAID, MALARIA RES LAB, MOLEC VACCINE SECT, BLDG 4, ROOM  
B1-37, BETHESDA, MD, 20892  
COUNTRY OF AUTHOR: USA  
SOURCE: JOURNAL OF EXPERIMENTAL MEDICINE, (01 NOV 1992) Vol. 176,  
No. 5, pp. 1483-1487.  
ISSN: 0022-1007.  
DOCUMENT TYPE: Note; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 34  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 99 OF 112 SCISEARCH COPYRIGHT 2002 ISI (R)  
ACCESSION NUMBER: 92:508331 SCISEARCH  
THE GENUINE ARTICLE: JJ844  
TITLE: MALARIA VACCINES  
AUTHOR: ROMERO P (Reprint)  
CORPORATE SOURCE: LUDWIG INST CANC RES, LAUSANNE BRANCH, CH-1066 EPALINGES,  
SWITZERLAND (Reprint)  
COUNTRY OF AUTHOR: SWITZERLAND  
SOURCE: CURRENT OPINION IN IMMUNOLOGY, (AUG 1992) Vol. 4, No. 4,  
pp. 432-441.  
ISSN: 0952-7915.  
DOCUMENT TYPE: General Review; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: ENGLISH  
REFERENCE COUNT: 92  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L13 ANSWER 100 OF 112 CABA COPYRIGHT 2002 CABI  
ACCESSION NUMBER: 95:124236 CABA  
DOCUMENT NUMBER: 950805310  
TITLE: **T cell** responses to repeat and  
non-repeat regions of the circumsporozoite  
**protein** detected in volunteers immunized  
with **Plasmodium falciparum**  
sporozoites  
AUTHOR: Nardin, E.; Munesinghe, Y. D.; Moreno, A.; Clavijo,  
P.; Calvo Calle, M.; Edelman, R.; Davis, J.;  
Herrington, D.; Nussenzweig, R. S.; Calle, M. C.;  
Ribeiro, C. T. D. [EDITOR]; Momen, H. [EDITOR]  
CORPORATE SOURCE: Department of Medical and Molecular Parasitology,  
New York University Medical Center, 341 East 25th  
Street, New York, NY 10010, USA.  
SOURCE: Memorias do Instituto Oswaldo Cruz, (1992) Vol. 87,  
No. Suppl. III, pp. 223-227. 22 ref.

Meeting Info.: Proceedings of the IV international  
congress on malaria and babesiosis, Rio de Janeiro,  
August 13-17, 1991.

ISSN: 0074-0276

DOCUMENT TYPE:

Journal

LANGUAGE:

English

L13 ANSWER 101 OF 112 USPATFULL  
ACCESSION NUMBER: 91:44652 USPATFULL  
TITLE: Expression cDNA clones encoding antigens of onchocerca  
volvulus  
INVENTOR(S): Greene, Bruce M., Shaker Heights, OH, United States  
Unnasch, Thomas R., South Euclid, OH, United States  
PATENT ASSIGNEE(S): University Hospitals of Cleveland, Cleveland, OH,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5021342		19910604
APPLICATION INFO.:	US 1988-214264		19880630 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Teskin, Robin L.		
ASSISTANT EXAMINER:	Ellis, Joan		
LEGAL REPRESENTATIVE:	Sprung Horn Kramer & Woods		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	1042		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 102 OF 112 MEDLINE  
ACCESSION NUMBER: 92096420 MEDLINE  
DOCUMENT NUMBER: 92096420 PubMed ID: 1721837  
TITLE: Cytotoxic CD4+ T cells from a  
sporozoite-immunized volunteer recognize the  
**Plasmodium falciparum** CS protein  
AUTHOR: Moreno A; Clavijo P; Edelman R; Davis J; Sztein M;  
Herrington D; Nardin E  
CORPORATE SOURCE: Department of Medical and Molecular Parasitology, New York  
University School of Medicine, NY 10010.  
CONTRACT NUMBER: 1F05TW04468-01 (FIC)  
AI 25085 (NIAID)  
AI 62533 (NIAID)  
SOURCE: INTERNATIONAL IMMUNOLOGY, (1991 Oct) 3 (10) 997-1003.  
Journal code: AY5; 8916182. ISSN: 0953-8178.  
PUB. COUNTRY: ENGLAND: United Kingdom  
Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199202  
ENTRY DATE: Entered STN: 19920223  
Last Updated on STN: 19980206  
Entered Medline: 19920203

L13 ANSWER 103 OF 112 USPATFULL  
ACCESSION NUMBER: 90:17613 USPATFULL  
TITLE: Antigenic determinants recognized by antibodies  
obtained using a pathogenic agent or a derivative  
thereof that presents a restricted set of antigens  
INVENTOR(S): Lyon, Jeffery A., Silver Spring, MD, United States  
Chulay, Jeffrey L., Washington, DC, United States  
Thomas, Alan W., Silver Spring, MD, United States

## PATENT ASSIGNEE(S):

Howard, Russell J., Los Altos Hills, CA, United States  
Weber, James L., Marshfield, WI, United States  
The United States of America as represented by the  
Secretary of the Army, Washington, DC, United States  
(U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4906564		19900306
APPLICATION INFO.:	US 1987-25741		19870313 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Nucker, Christine M.		
LEGAL REPRESENTATIVE:	Bellamy, Werten F. W.		
NUMBER OF CLAIMS:	8		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	817		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 104 OF 112 CABA COPYRIGHT 2002 CABI

ACCESSION NUMBER: 91:13844 CABA

DOCUMENT NUMBER: 910869129

TITLE: The **T cell** reactivity against  
the major merozoite **protein** of  
**Plasmodium falciparum**

AUTHOR: Crisanti, A.; Fruh, K.; Muller, H. M.; Bujard, H.  
CORPORATE SOURCE: ZMBH, Zentrum fur Molekulare Biologie Heidelberg,  
Universitat Heidelberg, Im Neuenheimer Feld 282,  
6900 Heidelberg, Germany.

SOURCE: Immunology Letters, (1990) Vol. 25, No. 1-3, pp.  
143-148. Fogarty/WHO International Conference on  
Cellular Mechanisms in Malaria Immunity, Bethesda,  
MD, USA, 3-6 April, 1990. 20 ref.  
ISSN: 0165-2478

DOCUMENT TYPE: Journal; Conference Article

LANGUAGE: English

L13 ANSWER 105 OF 112 CABA COPYRIGHT 2002 CABI

ACCESSION NUMBER: 93:64337 CABA

DOCUMENT NUMBER: 930803531

TITLE: Cellular and humoral immune responses to a  
recombinant *P. falciparum* CS **protein** in  
sporozoite-immunized rodents and human volunteers

AUTHOR: Nardin, E. H.; Nussenzweig, R. S.; Altszuler, R.;  
Herrington, D.; Levine, M.; Murphy, J.; Davis, J.;  
Bathurst, I.; Barr, P.; Romero, P.; Zavala, F.

CORPORATE SOURCE: Department of Medical and Molecular Parasitology,  
New York University School of Medicine, New York NY,  
USA.

SOURCE: Bulletin of the World Health Organization, (1990)  
Vol. 68, No. Supplement, pp. 85-87. Proceedings of a  
conference held in Bethesda, Maryland, USA, 12-15  
April 1989. 10 ref.  
ISSN: 0042-9686

DOCUMENT TYPE: Conference Article; Journal

LANGUAGE: English

L13 ANSWER 106 OF 112 CABA COPYRIGHT 2002 CABI

ACCESSION NUMBER: 93:64336 CABA

DOCUMENT NUMBER: 930803530

TITLE: Evidence implicating MHC genes in the immunological  
nonresponsiveness to the **Plasmodium**  
**falciparum** CS **protein**



AUTHOR: Good, M. F.; Kumar, S.; Groot, A. S. de; Weiss, W. R.; Quakyi, I. A.; Dontfraid, F.; Smith, G. E.; Cochran, M.; Berzofsky, J. A.; Miller, L. H.  
CORPORATE SOURCE: The Queensland Institute of Medical Research, Bramston Terrance, Herston, 4006, Brisbane, Qld., Australia.  
SOURCE: Bulletin of the World Health Organization, (1990) Vol. 68, No. Supplement, pp. 80-84. Proceedings of a conference held in Bethesda, Maryland, USA, 12-15 April 1989. 26 ref.  
ISSN: 0042-9686  
DOCUMENT TYPE: Conference Article; Journal  
LANGUAGE: English

L13 ANSWER 107 OF 112 LIFESCI COPYRIGHT 2002 CSA

ACCESSION NUMBER: 93:32888 LIFESCI  
TITLE: Cellular and humoral immune responses to a recombinant P. falciparum CS **protein** in sporozoite-immunized rodents and human volunteers.  
MALARIA VACCINE DEVELOPMENT: PRE-ERYTHROCYTIC **STAGES**.  
AUTHOR: Nardin, E.H.; Nussenzweig, R.S.; Altszuler, R.; Herrington, D.; Levine, M.; Murphy, J.; Davis, J.; et al.; Hoffman, S.L. [editor]; Martinez, L.J. [editor]  
CORPORATE SOURCE: Dep. Med. and Mol. Parasitol., New York Univ. Sch. Med., New York, NY 10016, USA  
SOURCE: BULL. W.H.O., (1990) pp. 85-87.  
Meeting Info.: Conference on Malaria Vaccine Development: Pre-erythrocytic Stages. Bethesda, MD (USA). 12-15 Apr 1989  
ISBN: 92-4-068680-0.  
DOCUMENT TYPE: Book  
TREATMENT CODE: Conference  
FILE SEGMENT: K  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L13 ANSWER 108 OF 112 LIFESCI COPYRIGHT 2002 CSA

ACCESSION NUMBER: 93:32918 LIFESCI  
TITLE: An invariant, "universal" **T-cell** epitope in the P. falciparum circumsporozoite **protein**.  
MALARIA VACCINE DEVELOPMENT: PRE-ERYTHROCYTIC **STAGES**.  
AUTHOR: Sinigaglia, F.; Guttinger, M.; Matile, H.; Pink, J.R.L.; Hoffman, S.L. [editor]; Martinez, L.J. [editor]  
CORPORATE SOURCE: Cent. Res. Units, Bld. 69/211, F. Hoffmann-La Roche Ltd., CH-4002 Basle, Switzerland  
SOURCE: BULL. W.H.O., (1990) pp. 94-98.  
Meeting Info.: Conference on Malaria Vaccine Development: Pre-erythrocytic Stages. Bethesda, MD (USA). 12-15 Apr 1989  
ISBN: 92-4-068680-0.  
DOCUMENT TYPE: Book  
TREATMENT CODE: Conference  
FILE SEGMENT: K  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L13 ANSWER 109 OF 112 LIFESCI COPYRIGHT 2002 CSA

ACCESSION NUMBER: 93:32873 LIFESCI  
TITLE: Evidence implicating MHC genes in the immunological nonresponsiveness to the **Plasmodium falciparum** CS **protein**.

MALARIA VACCINE DEVELOPMENT: PRE-ERYTHROCYTIC  
STAGES.

AUTHOR: Good, M.F.; Kumar, S.; de Groot, A.S.; Weiss, W.R.; Quakyi, I.A.; Dontfraid, F.; Smith, G.E.; et al.; Hoffman, S.L. [editor]; Martinez, L.J. [editor]  
CORPORATE SOURCE: Lab. Parasit. Dis., N.I.A.I.D., Natl. Inst. Health, Bethesda, MD 20014, USA  
SOURCE: BULL. W.H.O., (1990) pp. 80-84.  
Meeting Info.: Conference on Malaria Vaccine Development: Pre-erythrocytic Stages. Bethesda, MD (USA). 12-15 Apr 1989  
ISBN: 92-4-068680-0.  
DOCUMENT TYPE: Book  
TREATMENT CODE: Conference  
FILE SEGMENT: K  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L13 ANSWER 110 OF 112 USPATFULL  
ACCESSION NUMBER: 89:80739 USPATFULL  
TITLE: Recombinant baculovirus occlusion bodies in vaccines and biological insecticides  
INVENTOR(S): Fraser, Malcolm J., South Bend, IN, United States  
Rosen, Elliot D., South Bend, IN, United States  
Ploplis, Victoria A., South Bend, IN, United States  
PATENT ASSIGNEE(S): American Biogenetic Sciences, Inc., Copiague, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4870023		19890926
APPLICATION INFO.:	US 1988-153736		19880208 (7)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1987-26498, filed on 16 Mar 1987, now abandoned which is a continuation-in-part of Ser. No. US 1987-26499, filed on 16 Mar 1987		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wiseman, Thomas G.		
ASSISTANT EXAMINER:	Seidman, Stephanie		
LEGAL REPRESENTATIVE:	Pennie & Edmonds		
NUMBER OF CLAIMS:	51		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	28 Drawing Figure(s); 26 Drawing Page(s)		
LINE COUNT:	3868		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L13 ANSWER 111 OF 112 USPATFULL  
ACCESSION NUMBER: 88:55417 USPATFULL  
TITLE: Method and materials for development of immunological responses protective against malarial infection  
INVENTOR(S): Ristic, Miodrag, Urbana, IL, United States  
Chilbert, Mary L., Urbana, IL, United States  
PATENT ASSIGNEE(S): University of Illinois, Urbana, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4767622		19880830
APPLICATION INFO.:	US 1983-524919		19830819 (6)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wiseman, Thomas G.		
ASSISTANT EXAMINER:	Tiejkin, Robin Lyn		

LEGAL REPRESENTATIVE: Marshall, O'Toole, Gerstein, Murray & Bicknell  
NUMBER OF CLAIMS: 6  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 9 Drawing Page(s)  
LINE COUNT: 1604  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L13 ANSWER 112 OF 112 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS. INC.

ACCESSION NUMBER: 1988:440220 BIOSIS

TITLE: **T-CELL EPITOPES** IN PF155-RESA  
A MAJOR CANDIDATE FOR A **PLASMODIUM-**  
**FALCIPARUM** MALARIA VACCINE.

AUTHOR(S): KABILAN L; TROYE-BLOMBERG M; PERLMANN H; ANDERSON G; HOGH  
B; PETERSEN E; BJORKMAN A; PERLMANN P

CORPORATE SOURCE: DEP. IMMUNOL., UNIV. STOCKHOLM, S-10691 STOCKHOLM, SWEDEN.

SOURCE: PROC NATL ACAD SCI U S A, (1988) 85 (15), 5659-5663.  
CODEN: PNASA6. ISSN: 0027-8424.

FILE SEGMENT: BA; OLD

LANGUAGE: English

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L6 ANSWER 1 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:389006 BIOSIS  
DOCUMENT NUMBER: PREV200000389006  
TITLE: Development, expression, and murine testing of a multistage **Plasmodium falciparum** malaria vaccine candidate.  
AUTHOR(S): Shi, Ya Ping; Das, Parimal; Holloway, Brian; Udhayakumar, Venkatachalam; Tongren, Jon Eric; Candal, Francisco; Biswas, Sukla; Ahmad, Raies; **Hasnain, Seyed E.**; Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Molecular Vaccine Section, Division of Parasitic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Public Health Service, United States Department of Health and Human Service, Atlanta, GA, 30341-3717 USA  
SOURCE: Vaccine, (15 June, 2000) Vol. 18, No. 25, pp. 2902-2914. print.  
ISSN: 0264-410X.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L6 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1999:146248 BIOSIS  
DOCUMENT NUMBER: PREV199900146248  
TITLE: Immunogenicity and in vitro protective efficacy of a recombinant multistage **Plasmodium falciparum** candidate vaccine.  
AUTHOR(S): Shi, Ya Ping; **Hasnain, Seyed E.**; Sacchi, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Div. Parasitic Diseases, Mol. Vaccine Sect., Cent. Dis. Control Prevention, Mail Stop F-12, 4770 Buford Highway, Chambee, GA 30341-3717 USA  
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (Feb. 16, 1999) Vol. 96, No. 4, pp. 1615-1620.  
ISSN: 0027-8424.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L6 ANSWER 3 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 1996:541528 BIOSIS  
DOCUMENT NUMBER: PREV199699263884  
TITLE: A one-step lysis procedure for 18S ribosomal RNA-based diagnosis of infection by **Plasmodium** species.  
AUTHOR(S): Das, Ashis (1); Lal, Altaf A.; Talwar, Gursaran P.; **Hasnain, Seyed E.**; Sinha, Subrata  
CORPORATE SOURCE: (1) Natl. Inst. Immunol., Aruna Asaf Ali Marg, New Delhi 110067 India  
SOURCE: Analytical Biochemistry, (1996) Vol. 241, No. 2, pp. 262-264.  
ISSN: 0003-2697.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:145032 CAPLUS  
DOCUMENT NUMBER: 132:206925  
TITLE: Recombinant multivalent malarial vaccine against **Plasmodium falciparum**  
INVENTOR(S): Lal, Altaf A.; Shi, Ya Ping; **Hasnain, Seyed E.**  
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA;

SOURCE: National Institute of Immunology  
PCT Int. Appl., 52 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000011179	A1	20000302	WO 1999-US18869	19990819
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9957785	A1	20000314	AU 1999-57785	19990819
EP 1105487	A1	20010613	EP 1999-945095	19990819
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1998-97703 P 19980821  
WO 1999-US18869 W 19990819  
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1995:640046 CAPLUS  
DOCUMENT NUMBER: 123:75801  
TITLE: Species-specific 18S rRNA gene amplification for the detection of P. falciparum and P. vivax malaria parasites  
AUTHOR(S): Das, Ashis; Holloway, Brian; Collins, William E.; Shama, V. P.; Ghosh, Sushanta K.; Sinha, Subrata; Hasnain, Seyed E.; Talwar, Gursaran P.; Lal, Altaf A.  
CORPORATE SOURCE: Natl. Inst. Immunol., New Delhi, 110067, India  
SOURCE: Mol. Cell. Probes (1995), 9(3), 161-5  
CODEN: MCPRE6; ISSN: 0890-8508  
DOCUMENT TYPE: Journal  
LANGUAGE: English

=>

L1 ANSWER 1 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:521219 BIOSIS  
DOCUMENT NUMBER: PREV200100521219  
TITLE: Geographic subdivision of the range of the malaria parasite  
Plasmodium vivax.  
AUTHOR(S): Li, Jun; Collins, William E.; Wirtz, Robert A.; Rathore,  
Dharmendar; **Lal, Altaf**; McCutchan, Thomas F. (1)  
CORPORATE SOURCE: (1) NIAID, National Institutes of Health, 4 Center Drive,  
Room 4/126, Bethesda, MD, 20892: tmccutchan@niaid.nih.gov  
USA  
SOURCE: Emerging Infectious Diseases, (Jan Feb, 2001) Vol. 7, No.  
1, pp. 35-42. print.  
ISSN: 1080-6040.  
DOCUMENT TYPE: General Review  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 2 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:359409 BIOSIS  
DOCUMENT NUMBER: PREV200100359409  
TITLE: Evidence for clonal propagation in natural isolates of  
Plasmodium falciparum from Venezuela.  
AUTHOR(S): Urdaneta, Ludmel; **Lal, Altaf**; Barnabe, Christian;  
Oury, Bruno; Goldman, Ira; Ayala, Francisco J.; Tibayrenc,  
Michel (1)  
CORPORATE SOURCE: (1) Centre d'Etudes sur le Polymorphisme des  
Microorganismes, Unite Mixte de Recherche, Centre National  
de la Recherche Scientifique/Institut de Recherche pour le  
Development 9926, 34000, Montpellier Cedex 1 France  
SOURCE: Proceedings of the National Academy of Sciences of the  
United States of America, (June 5, 2001) Vol. 98, No. 12,  
pp. 6725-6729. print.  
ISSN: 0027-8424.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 3 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:206525 BIOSIS  
DOCUMENT NUMBER: PREV200100206525  
TITLE: Molecular characterization of Cryptosporidium oocysts in  
samples of raw surface water and wastewater.  
AUTHOR(S): Xiao, Lihua (1); Singh, Ajaib; Limor, Josef; Graczyk,  
Thaddeus K.; Gradus, Steve; **Lal, Altaf**  
CORPORATE SOURCE: (1) Division of Parasitic Diseases, Centers for Disease  
Control and Prevention, 4770 Buford Highway, Atlanta, GA,  
30341: lax0@cdc.gov USA  
SOURCE: Applied and Environmental Microbiology, (March, 2001) Vol.  
67, No. 3, pp. 1097-1101. print.  
ISSN: 0099-2240.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 4 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2001:77474 BIOSIS  
DOCUMENT NUMBER: PREV200100077474  
TITLE: Detection of the Cryptosporidium parvum "human" genotype in  
a dugong (Dugong dugon).  
AUTHOR(S): Morgan, Una M. (1); Xiao, Lihua; Hill, Bruce D.;  
O'Donoghue, Peter; Limor, Josef; **Lal, Altaf**;  
Thompson, R. C. Andrew (1)  
CORPORATE SOURCE: (1) World Health Organization Collaborating Centre for the  
Molecular Epidemiology of Parasitic Infections and State

Agricultural Biotechnology Centre, Division of Veterinary and Biomedical Sciences, Murdoch University, Murdoch, WA, 6150 Australia

SOURCE: Journal of Parasitology, (December, 2000) Vol. 86, No. 6, pp. 1352-1354. print.  
ISSN: 0022-3395.

DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 5 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:261306 BIOSIS  
DOCUMENT NUMBER: PREV200000261306  
TITLE: Cryptosporidium spp. in domestic dogs: The "dog" genotype.  
AUTHOR(S): Morgan, Una M. (1); Xiao, Lihua; Monis, Paul; Fall, Abbie; Irwin, Peter J.; Fayer, Ronald; Denholm, Karen M.; Limor, Josef; **Lal, Altaf**; Thompson, R. C. Andrew  
CORPORATE SOURCE: (1) Division of Veterinary and Biomedical Sciences, Murdoch University, South St., Murdoch, WA, 6150 Australia  
SOURCE: Applied and Environmental Microbiology, (May, 2000) Vol. 66, No. 5, pp. 2220-2223. print..  
ISSN: 0099-2240.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 6 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:181910 BIOSIS  
DOCUMENT NUMBER: PREV200000181910  
TITLE: An outbreak of cryptosporidiosis linked to a foodhandler.  
AUTHOR(S): Quiroz, Eva S.; Bern, Caryn (1); MacArthur, John R.; Xiao, Lihua; Fletcher, Madeleine; Arrowood, Michael J.; Shay, David K.; Levy, Martin E.; Glass, Roger I.; **Lal, Altaf**  
CORPORATE SOURCE: (1) Division of Parasitic Diseases, Centers for Disease Control and Prevention, National Center for Infectious Diseases, 4770 Buford Highway N.E., Atlanta, GA, 30341-3717 USA  
SOURCE: Journal of Infectious Diseases, (Feb., 2000) Vol. 181, No. 2, pp. 695-700.  
ISSN: 0022-1899.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 7 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2000:161826 BIOSIS  
DOCUMENT NUMBER: PREV200000161826  
TITLE: Molecular characterization of Cryptosporidium isolates obtained from human immunodeficiency virus-infected individuals living in Switzerland, Kenya, and the United States.  
AUTHOR(S): Morgan, Una (1); Weber, Rainer; Xiao, Lihua; Sulaiman, Irshad; Andrew Thompson, R. C.; Ndiritu, Wangeci; **Lal, Altaf**; Moore, Anne; Deplazes, Peter  
CORPORATE SOURCE: (1) Murdoch University, Murdoch, WA, 6150 Australia  
SOURCE: Journal of Clinical Microbiology., (March, 2000) Vol. 38, No. 3, pp. 1180-1183.  
ISSN: 0095-1137.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 8 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1999:383475 BIOSIS  
DOCUMENT NUMBER: PREV199900383475  
TITLE: Molecular epidemiology of cryptosporidiosis outbreaks and transmission in British Columbia, Canada.  
AUTHOR(S): Ong, Corinne S. L. (1); Eisler, Diane L.; Goh, Swee Han; Tomblin, Joan; Awad-El-Kariem, Fatih M.; Beard, Charles B.; Xiao, Lihua; Sulaiman, Irshad; **Lal, Altaf**; Fyfe, Murray; King, Arlene; Bowie, William R.; Isaac-Renton, Judith L.  
CORPORATE SOURCE: (1) Department of Pathology and Laboratory Medicine and Division of Infectious Diseases, Faculty of Medicine, University of British Columbia, Vancouver, BC Canada  
SOURCE: American Journal of Tropical Medicine and Hygiene, (July, 1999) Vol. 61, No. 1, pp. 63-69.  
ISSN: 0002-9637.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L1 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2001:447787 CAPLUS  
DOCUMENT NUMBER: 135:177871  
TITLE: Evidence for clonal propagation in natural isolates of Plasmodium falciparum from Venezuela  
AUTHOR(S): Urdaneta, Ludmel; **Lal, Altaf**; Barnabe, Christian; Oury, Bruno; Goldman, Ira; Ayala, Francisco J.; Tibayrenc, Michel  
CORPORATE SOURCE: Centro de Investigaciones Biomedicas, Nucleo Aragua, Universidad de Carabobo, Nucleo Aragua, Maracay, Venez.  
SOURCE: Proc. Natl. Acad. Sci. U. S. A. (2001), 98(12), 6725-6729  
CODEN: PNASA6; ISSN: 0027-8424  
PUBLISHER: National Academy of Sciences  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2001:170010 CAPLUS  
DOCUMENT NUMBER: 134:256493  
TITLE: Molecular characterization of Cryptosporidium oocysts in samples of raw surface water and wastewater  
AUTHOR(S): Xiao, Lihua; Singh, Ajaib; Limor, Josef; Graczyk, Thaddeus K.; Gradus, Steve; **Lal, Altaf**  
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 30341, USA  
SOURCE: Appl. Environ. Microbiol. (2001), 67(3), 1097-1101  
CODEN: AEMIDF; ISSN: 0099-2240  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2001:155668 CAPLUS  
DOCUMENT NUMBER: 134:338165  
TITLE: Geographic subdivision of the range of the malaria parasite Plasmodium vivax  
AUTHOR(S): Li, Jun; Collins, William E.; Wirtz, Robert A.; Rathore, Dharmendar; **Lal, Altaf**; McCutchan, Thomas F.



CORPORATE SOURCE: National Institutes of Health, Bethesda, MD, 20892, USA  
SOURCE: Emerging Infect. Dis. (2001), 7(1), 35-42  
CODEN: EIDIFA; ISSN: 1080-6040  
PUBLISHER: National Center for Infectious Diseases, Centers for Disease Control and Prevention  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:309707 CAPLUS  
DOCUMENT NUMBER: 133:249539  
TITLE: Cryptosporidium spp. in domestic dogs: the "dog" genotype  
AUTHOR(S): Morgan, Una M.; Xiao, Lihua; Monis, Paul; Fall, Abbie; Irwin, Peter J.; Fayer, Ronald; Denholm, Karen M.; Limor, Josef; **Lal, Altaf**; Thompson, R. C. Andrew  
CORPORATE SOURCE: World Health Organisation Collaborating Centre for the Molecular Epidemiology of Parasitic Infections and State Agricultural Biotechnology Centre, Division of Veterinary and Biomedical Sciences, Murdoch University, Murdoch, 6150, Australia  
SOURCE: Appl. Environ. Microbiol. (2000), 66(5), 2220-2223  
CODEN: AEMIDF; ISSN: 0099-2240  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 2000:203613 CAPLUS  
DOCUMENT NUMBER: 133:2289  
TITLE: Molecular characterization of Cryptosporidium isolates obtained from human immunodeficiency virus-infected individuals living in Switzerland, Kenya, and the United States  
AUTHOR(S): Morgan, Una; Weber, Rainer; Xiao, Lihua; Sulaiman, Irshad; Thompson, R. C. Andrew; Ndiritu, Wangeci; **Lal, Altaf**; Moore, Anne; Deplazes, Peter  
CORPORATE SOURCE: Division of Veterinary and Biomedical Sciences, Murdoch University, Murdoch, 6150, Australia  
SOURCE: J. Clin. Microbiol. (2000), 38(3), 1180-1183  
CODEN: JCMIDW; ISSN: 0095-1137  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS  
ACCESSION NUMBER: 1996:305374 CAPLUS  
DOCUMENT NUMBER: 125:7783  
TITLE: Human immune response to MSP-1: Reply to comments  
AUTHOR(S): Udhayakumar, Venkatachalam; Hawley, William; Nahlen, Bernard; **Lal, Altaf**  
CORPORATE SOURCE: Division of Parasitic Diseases, National Centre for Infectious Diseases, Atlanta, GA, 30341, USA  
SOURCE: Parasitol. Today (1996), 12(5), 206  
CODEN: PATOE2; ISSN: 0169-4758  
DOCUMENT TYPE: Journal

LANGUAGE:

English

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(FILE 'HOME' ENTERED AT 12:22:14 ON 05 FEB 2002)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH,  
USPATFULL, JAPIO' ENTERED AT 12:22:36 ON 05 FEB 2002

L1	176107 S HISTIDINE
L2	22303 S TAGGING
L3	149281 S RECOMBINANT PROTEIN
L4	180005 S EPITOPES
L5	621 S L1 AND L2
L6	201 S L5 AND L3
L7	101 S L6 AND L4
L8	101 DUP REM L7 (0 DUPLICATES REMOVED)
L9	70 S L8 AND ADVANTAGES

=>

L8 ANSWER 1 OF 101 USPATFULL  
ACCESSION NUMBER: 2002:22132 USPATFULL  
TITLE: Insulin homolog polypeptide zins4  
INVENTOR(S): Holloway, James L., Seattle, WA, UNITED STATES  
Lok, Si, Seattle, WA, UNITED STATES  
Jaspers, Stephen R., Edmonds, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002012967	A1	20020131
APPLICATION INFO.:	US 2001-781077	A1	20010209 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-188544	20000310 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Susan E. Lingenfelter, ZymoGenetics, Inc., 1201 Eastlake Avenue East, Seattle, WA, 98102	
NUMBER OF CLAIMS:	30	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3097	

L8 ANSWER 2 OF 101 USPATFULL  
ACCESSION NUMBER: 2002:21834 USPATFULL  
TITLE: Human cytokine receptor  
INVENTOR(S): Presnell, Scott R, Tacoma, WA, UNITED STATES  
Xu, Wenfeng, Mukilteo, WA, UNITED STATES  
Kindsvogel, Wayne, Seattle, WA, UNITED STATES  
Chen, Zhi, Seattle, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002012669	A1	20020131
APPLICATION INFO.:	US 2000-728911	A1	20001201 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-169049	19991203 (60)
	US 2000-232219	20000913 (60)
	US 2000-244610	20001031 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Jennifer K Johnson J D, ZymoGenetics Inc, 1201 Eastlake Avenue East, Seattle, WA, 98102	
NUMBER OF CLAIMS:	66	
EXEMPLARY CLAIM:	1	
LINE COUNT:	7478	

L8 ANSWER 3 OF 101 USPATFULL  
ACCESSION NUMBER: 2002:21823 USPATFULL  
TITLE: PREVENTION AND TREATMENT OF VEROTOXIN-INDUCED DISEASE  
INVENTOR(S): WILLIAMS, JAMES A., LINCOLN, NE, UNITED STATES  
BYRNE, LISA MARIE, STOUGHTON, WI, UNITED STATES  
PUGH, CHARLES S.G., MADISON, WI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002012658	A1	20020131
APPLICATION INFO.:	US 1999-334477	A1	19990616 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-816977, filed on 13 Mar 1997, GRANTED, Pat. No. US 6080400		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		

LEGAL REPRESENTATIVE: KAMRIN T MACKNIGHT, MEDLEN & CARROLL LLP, 220  
MONTGOMERY STREET, SUITE 2200, SAN FRANCISCO, CA, 94104  
NUMBER OF CLAIMS: 51  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 18 Drawing Page(s)  
LINE COUNT: 5803

L8 ANSWER 4 OF 101 USPATFULL  
ACCESSION NUMBER: 2002:16895 USPATFULL  
TITLE: Helical protein zalpha51  
INVENTOR(S): Conklin, Darrell C., Seattle, WA, UNITED STATES  
Presnell, Scott R., Tacoma, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002009775	A1	20020124
APPLICATION INFO.:	US 2001-810052	A1	20010316 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-190410	20000317 (60)
	US 2000-199443	20000425 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Deborah A. Sawislak, ZymoGenetics, Inc., 1201 Eastlake Avenue East, Seattle, WA, 98102	
NUMBER OF CLAIMS:	44	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	3249	

L8 ANSWER 5 OF 101 USPATFULL  
ACCESSION NUMBER: 2002:16893 USPATFULL  
TITLE: DEATH DOMAIN CONTAINING RECEPTORS  
INVENTOR(S): YU, GUO-LIANG, DARNESTOWN, MD, UNITED STATES  
NI, JIAN, ROCKVILLE, MD, UNITED STATES  
GENTZ, REINER L., SILVER SPRING, MD, UNITED STATES  
DILLON, PATRICK J., GAITHERSBURG, MD, UNITED STATES  
PATENT ASSIGNEE(S): Human Genome Sciences, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002009773	A1	20020124
APPLICATION INFO.:	US 1999-333966	A1	19990616 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-815469, filed on 11 Mar 1997, GRANTED, Pat. No. US 6153402		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-13285	19960312 (60)
	US 1996-28711	19961017 (60)
	US 1997-37341	19970206 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	STERNE KESSLER GOLDSTEIN & FOX PLLC, ATTORNEYS AT LAW, 1100 NEW YORK AVENUE N W SUITE 600, WASHINGTON, DC, 200053934	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	3011	

L8 ANSWER 6 OF 101 USPATFULL  
ACCESSION NUMBER: 2002:12284 USPATFULL

TITLE: Arrayed transfection method and uses related thereto  
INVENTOR(S): Sabatini, David M., Cambridge, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002006664	A1	20020117
APPLICATION INFO.:	US 2001-817003	A1	20010322 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-193580	20000330 (60)
	US 1999-154737	19990917 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	ROPES & GRAY, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624	
NUMBER OF CLAIMS:	37	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Page(s)	
LINE COUNT:	2671	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 7 OF 101 USPATFULL  
ACCESSION NUMBER: 2002:3610 USPATFULL  
TITLE: Zacel: a human metalloenzyme  
INVENTOR(S): Sheppard, Paul O., Granite Falls, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002001583	A1	20020103
APPLICATION INFO.:	US 2001-846996	A1	20010501 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-440325, filed on 15 Nov 1999, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-109783	19981125 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Phillip Jones, Patent Department, ZymoGenetics, Inc., 1201 Eastlake Avenue East, Seattle, WA, 98102	
NUMBER OF CLAIMS:	22	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3929	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 8 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:224215 USPATFULL  
TITLE: Human semaphorin ZSMF-16  
INVENTOR(S): Holloway, James L., Seattle, WA, United States  
Foley, Kevin P., Cambridge, MA, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001049432	A1	20011206
APPLICATION INFO.:	US 2000-731179	A1	20001206 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-169238	19991206 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Jennifer K. Johnson, J.D., ZymoGenetics, Inc., 1201 Eastlake Avenue East, Seattle, WA, 98102	

NUMBER OF CLAIMS: 23  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 18 Drawing Page(s)  
LINE COUNT: 3805  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 9 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:212528 USPATFULL  
TITLE: Novel FGF Homolog zFGF12  
INVENTOR(S): Conklin, Darrell C., Seattle, WA, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044525	A1	20011122
APPLICATION INFO.:	US 2001-754634	A1	20010104 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-174582	20000105 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Deborah A. Sawislak, ZymoGenetics, Inc., 1201 Eastlake Avenue East, Seattle, WA, 98102	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	8 Drawing Page(s)	
LINE COUNT:	2457	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:212140 USPATFULL  
TITLE: Novel secreted polypeptide zsig87  
INVENTOR(S): Sheppard, Paul O., Granite Falls, WA, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044134	A1	20011122
APPLICATION INFO.:	US 2000-733523	A1	20001208 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-169597	19991208 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Jennifer K. Johnson, J.D., ZymoGenetics, Inc., 1201 Eastlake Avenue East, Seattle, WA, 98102	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3806	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 11 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:205584 USPATFULL  
TITLE: Protein expression system arrays and use in biological screening  
INVENTOR(S): Patron, Andrew, San Diego, CA, United States  
Sawafita, Reyad, Greensboro, NC, United States  
Zhou, Bin, Edmond, OK, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001041349	A1	20011115
APPLICATION INFO.:	US 2001-836746	A1	20010417 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-197692	20000417 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Cynthia B. Rothschild, Kilpatrick Stockton LLP, 1001 West Fourth Street, Winston-Salem, NC, 27101	
NUMBER OF CLAIMS:	51	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	1513	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 12 OF 101 USPATFULL  
 ACCESSION NUMBER: 2001:188798 USPATFULL  
 TITLE: Proteoliposomes containing an integral membrane protein having one or more transmembrane domains  
 INVENTOR(S): Sodroski, Joseph G., Medford, MA, United States  
 Mirzabekov, Tajib, Newton, MA, United States  
 PATENT ASSIGNEE(S): Dana-Farber Cancer Institute, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001034432	A1	20011025
APPLICATION INFO.:	US 2000-749240	A1	20001227 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-173675	19991230 (60)
	US 2000-207596	20000526 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Ronald I. Eisenstein, NIXON PEABODY LLP, 101 Federal Street, Boston, MA, 02110	
NUMBER OF CLAIMS:	21	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	19 Drawing Page(s)	
LINE COUNT:	2083	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 13 OF 101 USPATFULL  
 ACCESSION NUMBER: 2001:123570 USPATFULL  
 TITLE: DNA fragmentation factor involved in apoptosis  
 INVENTOR(S): Wang, Xiaodong, Dallas, TX, United States  
 Liu, Xueson, Dallas, TX, United States  
 PATENT ASSIGNEE(S): Board of Regents, The University of Texas System (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001011078	A1	20010802
APPLICATION INFO.:	US 2000-748451	A1	20001222 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-61702, filed on 16 Apr 1998, GRANTED, Pat. No. US 6165737		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Gina N. Shishima, Esq., FULBRIGHT & JAWORSKI, 600 Congress Avenue, Suite 1900, Austin, TX, 78701		
NUMBER OF CLAIMS:	100		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	5190		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			



L8 ANSWER 14 OF 101 USPATFULL

ACCESSION NUMBER: 2001:231394 USPATFULL  
TITLE: Maize DIMBOA biosynthesis genes  
INVENTOR(S): Chomet, Paul S., Mystic, CT, United States  
Frey, Monika, Garching, Germany, Federal Republic of  
Gierl, Alfons, Munich, Germany, Federal Republic of  
PATENT ASSIGNEE(S): Dekalb Genetics Corporation, Dekalb, IL, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6331660	B1	20011218
APPLICATION INFO.:	US 1998-39046		19980313 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-40513	19970313 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Nelson, Amy J.	
ASSISTANT EXAMINER:	Zaghmout, O. M. F.	
LEGAL REPRESENTATIVE:	Fulbright & Jaworski LLP	
NUMBER OF CLAIMS:	60	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 7 Drawing Page(s)	
LINE COUNT:	4040	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 15 OF 101 USPATFULL

ACCESSION NUMBER: 2001:231160 USPATFULL  
TITLE: Secreted salivary ZSIG63 Polypeptide  
INVENTOR(S): Adler, David A., Bainbridge Island, WA, United States  
Sheppard, Paul O., Granite Falls, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6331413	B1	20011218
APPLICATION INFO.:	US 2000-527345		20000317 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-124820	19990317 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Prouty, Rebecca E.	
ASSISTANT EXAMINER:	Monshipouri, Maryam	
LEGAL REPRESENTATIVE:	Johnson, JD, Jennifer K.	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2896	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 16 OF 101 USPATFULL

ACCESSION NUMBER: 2001:226818 USPATFULL  
TITLE: High lysine fertile transgenic corn plants  
INVENTOR(S): Lundquist, Ronald C., Minnetonka, MN, United States  
Walters, David A., Groton, CT, United States  
Kirihaara, Julie A., Bloomington, MN, United States  
PATENT ASSIGNEE(S): Dekalb Genetics Corporation, DeKalb, IL, United States  
(U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6329574 B1 20011211  
 APPLICATION INFO.: US 1998-122399 19980724 (9)  
 RELATED APPLN. INFO.: Division of Ser. No. US 1995-440646, filed on 15 May 1995  
 Division of Ser. No. US 1993-112245, filed on 25 Aug 1993  
 Continuation-in-part of Ser. No. US 1990-636089, filed on 28 Dec 1990, now abandoned  
 Continuation-in-part of Ser. No. US 1990-508045, filed on 11 Apr 1990, now patented, Pat. No. US 5484956  
 Continuation-in-part of Ser. No. US 1990-467983, filed on 22 Jan 1990, now abandoned  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Benzion, Gary  
 LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.  
 NUMBER OF CLAIMS: 41  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 55 Drawing Figure(s); 52 Drawing Page(s)  
 LINE COUNT: 10058  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 17 OF 101 USPATFULL  
 ACCESSION NUMBER: 2001:196825 USPATFULL  
 TITLE: Complementary DNAs  
 INVENTOR(S): Edwards, Jean-Baptiste Dumas Milne, Paris, France  
 Duclert, Aymeric, Saint Maur, France  
 Bougueleret, Lydie, Vanves, France  
 PATENT ASSIGNEE(S): Genset, Paris, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6312922	B1	20011106
APPLICATION INFO.:	US 1999-247155		19990209 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-74121	19980209 (60)
	US 1998-81563	19980413 (60)
	US 1998-96116	19980810 (60)
	US 1998-99273	19980904 (60)
	US 1998-96116	19980904 (60)
	US 1998-99273	19980904 (60)
	US 1998-99273	19980904 (60)
	US 1998-96116	19980904 (60)
	US 1998-99273	19980904 (60)
	US 1998-99273	19980904 (60)
	US 1998-99273	19980904 (60)

DOCUMENT TYPE: Utility  
 FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Brusca, John S.  
 LEGAL REPRESENTATIVE: Knoibbe, Martens, Olson & Bear, LLP  
 NUMBER OF CLAIMS: 33  
 EXEMPLARY CLAIM: 32  
 NUMBER OF DRAWINGS: 12 Drawing Figure(s); 10 Drawing Page(s)  
 LINE COUNT: 6339  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 101 USPATFULL  
 ACCESSION NUMBER: 2001:190731 USPATFULL  
 TITLE: MHC molecules and uses thereof  
 INVENTOR(S): Rhode, Peter R., Miami, FL, United States  
 Jiao, Jin-An, Fort Lauderdale, FL, United States  
 Burkhardt, Martin, Miami, FL, United States  
 Wong, Hing C., Fort Lauderdale, FL, United States

PATENT ASSIGNEE(S): Sunol Molecular Corporation, Miramar, FL, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6309645	B1	20011030
APPLICATION INFO.:	US 1998-67615		19980428 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1996-596387, filed on 31 Jan 1996, now patented, Pat. No. US 5869270		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Saunders, David		
ASSISTANT EXAMINER:	DeCloux, Amy		
LEGAL REPRESENTATIVE:	Buchanan, Robert L., Corless, Peter F. Edwards & Angell, LLP		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	82 Drawing Figure(s); 69 Drawing Page(s)		
LINE COUNT:	4129		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 19 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:185455 USPATFULL  
TITLE: Cytokine zalphall Ligand  
INVENTOR(S): Novak, Julia E., Bainbridge Island, WA, United States  
Presnell, Scott R., Tacoma, WA, United States  
Sprecher, Cindy A., Seattle, WA, United States  
Foster, Donald C., Lake Forest Park, WA, United States  
Holly, Richard D., Seattle, WA, United States  
Gross, Jane A., Seattle, WA, United States  
Johnston, Janet V., Seattle, WA, United States  
Nelson, Andrew J., Shoreline, WA, United States  
Dillon, Stacey R., Seattle, WA, United States  
Hammond, Angela K., Maple Valley, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6307024	B1	20011023
APPLICATION INFO.:	US 2000-522217		20000309 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-123547	19990309 (60)
	US 1999-123904	19990311 (60)
	US 1999-142013	19990701 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Stucker, Jeffrey	
ASSISTANT EXAMINER:	Seharaseyon, Jegatheesan	
LEGAL REPRESENTATIVE:	Sawislak, Deborah A.	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	7160	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 20 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:173371 USPATFULL  
TITLE: Peptides related to TPC2 and TPC3, two proteins that  
are coexpressed with telomerase activity  
INVENTOR(S): Villeponteau, Bryant, San Carlos, CA, United States  
Feng, Junli, San Carlos, CA, United States

## PATENT ASSIGNEE(S):

Andrews, William H., Richmond, CA, United States  
Adams, Robert R., Redwood City, CA, United States  
Geron Corporation, Menlo Park, CA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6300110	B1	20011009
APPLICATION INFO.:	US 1998-220157		19981223 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1996-710249, filed on 13 Sep 1996, now patented, Pat. No. US 5858777 Continuation-in-part of Ser. No. US 1996-583808, filed on 5 Jan 1996, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-3492	19950909 (60)
	US 1995-8949	19951020 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Achutamurthy, Ponnathapu	
ASSISTANT EXAMINER:	Saidha, Tekchand	
LEGAL REPRESENTATIVE:	Geron Corporation, Schiff, J. Michael, Earp, David J.	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 22 Drawing Page(s)	
LINE COUNT:	2310	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 21 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:152483 USPATFULL  
TITLE: Modified HGP-30 heteroconjugates, compositions and  
methods of use  
INVENTOR(S): Zimmerman, Daniel H., Bethesda, MD, United States  
Sarin, Prem S., Gaithersburg, MD, United States  
PATENT ASSIGNEE(S): Cel-Sci Corporation, Vienna, VA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6287565	B1	20010911
APPLICATION INFO.:	US 2000-594845		20000615 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1996-695304, filed on 8 Aug 1996, now patented, Pat. No. US 6103239		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Stucker, Jeffrey		
LEGAL REPRESENTATIVE:	Sherman & Shalloway		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1227		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 22 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:147718 USPATFULL  
TITLE: Mitofusin genes and their uses  
INVENTOR(S): Fuller, Margaret T., Stanford, CA, United States  
Hales, Karen G., Durham, NC, United States  
PATENT ASSIGNEE(S): The Board of Trustees of the Leland Stanford Junior  
University, Palo Alto, CA, United States (U.S.  
corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6284507 B1 20010904  
APPLICATION INFO.: US 1999-447453 19991122 (9)  
RELATED APPLN. INFO.: Division of Ser. No. US 1998-90808, filed on 4 Jun 1998

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-48961	19970606 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Prouty, Rebecca E.	
ASSISTANT EXAMINER:	Rao, Manjunath	
LEGAL REPRESENTATIVE:	Sherwood, Pamela J.Bozicevic, Field & Francis LLP	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	1556	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 23 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:142135 USPATFULL  
TITLE: Zace 1: a human metalloenzyme  
INVENTOR(S): Sheppard, Paul O., Granite Falls, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6280994	B1	20010828
APPLICATION INFO.:	US 1999-440325		19991115 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Achutamurthy, Ponnathapu		
ASSISTANT EXAMINER:	Moore, William W.		
LEGAL REPRESENTATIVE:	Jones, Phillip B. C.		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
LINE COUNT:	3706		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 24 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:136184 USPATFULL  
TITLE: Immunoglobulin-like domains with increased half-lives  
INVENTOR(S): Ward, Elizabeth Sally, Dallas, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6277375	B1	20010821
APPLICATION INFO.:	US 1997-811463		19970303 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Saunders, David		
LEGAL REPRESENTATIVE:	Fulbright & Jaworski		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 15 Drawing Page(s)		
LINE COUNT:	4495		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 25 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:126193 USPATFULL  
TITLE: Cells and methods for the generation of transgenic pigs  
INVENTOR(S): Piedrahita, Jorge A., College Station, TX, United

PATENT ASSIGNEE(S): States  
Bazer, Fuller W., College Station, TX, United States  
The Texas A & M University System, College Station, TX,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6271436	B1	20010807
APPLICATION INFO.:	US 1997-949155		19971010 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-27338	19961011 (60)
	US 1997-46094	19970509 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Martin, Jill D.	
LEGAL REPRESENTATIVE:	Williams, Morgan & Amerson	
NUMBER OF CLAIMS:	69	
EXEMPLARY CLAIM:	55	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	8905	

L8 ANSWER 26 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:117169 USPATFULL  
TITLE: Expressed ligand-vascular intercellular signalling molecule  
INVENTOR(S): Davis, Samuel, New York, NY, United States  
Yancopoulos, George D., Yorktown Heights, NY, United States  
PATENT ASSIGNEE(S): Regeneron Pharmaceuticals, Inc., Tarrytown, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6265564	B1	20010724
APPLICATION INFO.:	US 1996-740223		19961025 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-22999	19960802 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Saunders, David	
ASSISTANT EXAMINER:	DeCloux, Amy	
LEGAL REPRESENTATIVE:	Cobert, Robert J., Palladino, Linda O.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	54 Drawing Figure(s); 47 Drawing Page(s)	
LINE COUNT:	2851	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 27 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:117149 USPATFULL  
TITLE: Adipocyte-specific protein homologs  
INVENTOR(S): Sheppard, Paul O., Redmond, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6265544	B1	20010724
APPLICATION INFO.:	US 1998-118408		19980717 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-53154	19970718 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Achutamurthy, Ponnathapu	
ASSISTANT EXAMINER:	Tung, Peter P.	
LEGAL REPRESENTATIVE:	Lingenfelter, Susan	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	3358	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 28 OF 101 USPATFULL  
 ACCESSION NUMBER: 2001:116805 USPATFULL  
 TITLE: Disintegrin homologs  
 INVENTOR(S): Sheppard, Paul O., Redmond, WA, United States  
 Baindur, Nand, Edmonds, WA, United States  
 Deisher, Theresa A., Seattle, WA, United States  
 Bishop, Paul D., Fall City, WA, United States  
 Taft, David W., Seattle, WA, United States  
 PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6265199	B1	20010724
APPLICATION INFO.:	US 1999-351414		19990709 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-92371	19980710 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Achutamurthy, Ponnathapu	
ASSISTANT EXAMINER:	Kerr, Kathleen	
LEGAL REPRESENTATIVE:	Adams, Robyn	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	17 Drawing Figure(s); 17 Drawing Page(s)	
LINE COUNT:	2822	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 29 OF 101 USPATFULL  
 ACCESSION NUMBER: 2001:112506 USPATFULL  
 TITLE: Tumor suppressor designated TS10Q23.3  
 INVENTOR(S): Steck, Peter, Bellaire, TX, United States  
 Pershouse, Mark A., Houston, TX, United States  
 Jasser, Samar A., Houston, TX, United States  
 Yung, W. K. Alfred, Houston, TX, United States  
 Tavtigian, Sean V., Salt Lake City, UT, United States  
 PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)  
 Myriad Genetics, Inc., Salt Lake City, UT, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6262242	B1	20010717
APPLICATION INFO.:	US 1997-791115		19970130 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Caputa, Anthony C.		

ASSISTANT EXAMINER: Canella, Karen A.  
LEGAL REPRESENTATIVE: Rothwell, Figg, Ernst & Manbeck, p.c.  
NUMBER OF CLAIMS: 32  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 39 Drawing Figure(s); 33 Drawing Page(s)  
LINE COUNT: 4006  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 30 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:108027 USPATFULL  
TITLE: HIV-1P-17 peptide fragments, compositions containing  
and methods for producing and using same  
INVENTOR(S): Zimmerman, Daniel H., Bethesda, MD, United States  
Sarin, Prem S., Gaithersburg, MD, United States  
PATENT ASSIGNEE(S): Viral Technologies INC, Vienna, VA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6258945	B1	20010710
APPLICATION INFO.:	US 2000-588751		20000607 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-824800, filed on 26 Mar 1997, now patented, Pat. No. US 6111068 Continuation-in-part of Ser. No. US 1996-695301, filed on 9 Aug 1996, now patented, Pat. No. US 6093400		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Stucker, Jeffrey		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	1294		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 31 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:108018 USPATFULL  
TITLE: SpoIIIE  
INVENTOR(S): Hodgson, John Edward, Malvern, PA, United States  
Chalker, Alison Frances, Collegeville, PA, United  
States  
PATENT ASSIGNEE(S): SmithKline Beecham p.l.c., United Kingdom (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6258936	B1	20010710
APPLICATION INFO.:	US 1998-205048		19981204 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-785431, filed on 17 Jan 1997, now patented, Pat. No. US 5891667		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1996-955	19960117
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Navarro, Mark	
ASSISTANT EXAMINER:	Lee, Li	
LEGAL REPRESENTATIVE:	Gimmi, Edward R., Deibert, Thomas S., King, William T.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Figure(s); 4 Drawing Page(s)	
LINE COUNT:	1423	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.



L8 ANSWER 32 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:86232 USPATFULL  
TITLE: Testis-specific cystatin-like protein cystatin T  
INVENTOR(S): Holloway, James L., Seattle, WA, United States  
Feldhaus, Andrew L., Lynnwood, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6245529	B1	20010612
APPLICATION INFO.:	US 2000-617302		20000717 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-431480, filed on 1 Nov 1999		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-109217	19981120 (60)
	US 1999-156382	19990928 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Nashed, Nashaat T.	
ASSISTANT EXAMINER:	Fronza, Christian L.	
LEGAL REPRESENTATIVE:	Lingenfelter, Susan	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2653	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 33 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:79278 USPATFULL  
TITLE: Disulfide core polypeptides  
INVENTOR(S): Conklin, Darrell C., Seattle, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6239254	B1	20010529
APPLICATION INFO.:	US 1999-326039		19990604 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-88136	19980604 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Nashed, Nashaat T.	
ASSISTANT EXAMINER:	Fronza, Christian L.	
LEGAL REPRESENTATIVE:	Lunn, Esq., Paul G.	
NUMBER OF CLAIMS:	2	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1914	

L8 ANSWER 34 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:75361 USPATFULL  
TITLE: Testis-specific cystatin-like protein cystatin T  
INVENTOR(S): Holloway, James L., Seattle, WA, United States  
Feldhaus, Andrew L., Lynnwood, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc, Seattle, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6235708	B1	20010522

APPLICATION INFO.: US 1999-431480 19991101 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-109217	19981120 (60)
	US 1999-156382	19990928 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Nashed, Nashaat T.	
ASSISTANT EXAMINER:	Fronza, Christian L.	
LEGAL REPRESENTATIVE:	Lingenfelter, Susan	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	2581	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 35 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:75188 USPATFULL  
TITLE: Fluorescent energy transfer ligand interaction assay on a lipid film  
INVENTOR(S): Keinanen, Kari, Espoo, Finland  
Laukkanen, Marja-Leena, Turku, Finland  
Soderlund, Hans, Espoo, Finland  
PATENT ASSIGNEE(S): Valtion Teknillinen Tutkimuskeskus, Finland (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6235535	B1	20010522
	WO 9800714		19980108
APPLICATION INFO.:	US 1998-202976		19981224 (9)
	WO 1997-FI419		19970630
			19981224 PCT 371 date
			19981224 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	FI 1996-2686	19960628
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Le, Long V.	
ASSISTANT EXAMINER:	Padmanabhan, Kartic	
LEGAL REPRESENTATIVE:	Evenson, McKeown, Edwards & Lenahan, P.L.L.C.	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)	
LINE COUNT:	706	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 36 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:71679 USPATFULL  
TITLE: Soluble MHC complexes and methods of use thereof  
INVENTOR(S): Rhode, Peter R., Miami, FL, United States  
Acevedo, Jorge, Miami, FL, United States  
Burkhardt, Martin, Miami, FL, United States  
Jiao, Jin-an, Fort Lauderdale, FL, United States  
Wong, Hing C., Fort Lauderdale, FL, United States  
PATENT ASSIGNEE(S): Sunol Molecular Corporation, Miramar, FL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6232445	B1	20010515
APPLICATION INFO.:	US 1997-960190		19971029 (8)

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Saunders, David  
ASSISTANT EXAMINER: DeCloux, Amy  
LEGAL REPRESENTATIVE: Corless, Peter F., Buchanan, Robert L.  
NUMBER OF CLAIMS: 20  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 32 Drawing Figure(s); 26 Drawing Page(s)  
LINE COUNT: 3871  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 37 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:60036 USPATFULL  
TITLE: Mammalian pro-apoptotic Bok genes and their uses  
INVENTOR(S): Hsueh, Aaron J. W., Stanford, CA, United States  
Hsu, Sheau Yu, Mountain View, CA, United States  
PATENT ASSIGNEE(S): The Board of Trustees of the Leland Stanford Junior  
University, Palo Alto, CA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6222017	B1	20010424
APPLICATION INFO.:	US 2000-517347		20000302 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-186250, filed on 4 Nov 1998, now patented, Pat. No. US 6043055		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-64943	19971107 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Schwartzman, Robert A.	
LEGAL REPRESENTATIVE:	Sherwood, Pamela J.Bozicevic, Field & Francis LLP	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)	
LINE COUNT:	1701	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 38 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:29788 USPATFULL  
TITLE: Alteration of hemicellulose concentration in plants  
INVENTOR(S): Dhugga, Kanwarpal S., Johnston, IA, United States  
Nichols, Scott E., Johnston, IA, United States  
Fallis, Patricia Lynne, Polk City, IA, United States  
PATENT ASSIGNEE(S): Pioneer Hi-Bred International, Inc., Des Moines, IA,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6194638	B1	20010227
APPLICATION INFO.:	US 1999-338671		19990622 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-90416	19980623 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Fox, David T.	
ASSISTANT EXAMINER:	Ibrahim, Medina A	
LEGAL REPRESENTATIVE:	Pioneer Hi-Bred International, Inc.	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1,11	

LINE COUNT: 3616  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 39 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:25428 USPATFULL  
TITLE: Methods and compositions for the use of  
apurinic/apyrimidinic endonucleases  
INVENTOR(S): Kelley, Mark R., Zionsville, IN, United States  
Duquid, John, Brownsburg, IN, United States  
Eble, John, Indianapolis, IN, United States  
PATENT ASSIGNEE(S): Advanced Research & Technology Institute, Bloomington,  
IN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6190661	B1	20010220
APPLICATION INFO.:	US 1999-336890		19990618 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-872719, filed on 11 Jun 1997, now patented, Pat. No. US 5919643		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-19561	19960611 (60)
	US 1996-19602	19960611 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Patterson, Jr., Charles L.	
LEGAL REPRESENTATIVE:	Fulbright & Jaworski	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	57 Drawing Figure(s); 21 Drawing Page(s)	
LINE COUNT:	4568	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 40 OF 101 USPATFULL  
ACCESSION NUMBER: 2001:18449 USPATFULL  
TITLE: Cell death regulators  
INVENTOR(S): Korsmeyer, Stanley J., Clayton, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6184202	B1	20010206
APPLICATION INFO.:	US 1997-927326		19970911 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-337646, filed on 10 Nov 1994, now patented, Pat. No. US 5856171 Continuation-in-part of Ser. No. US 1994-248819, filed on 25 May 1994, now patented, Pat. No. US 5700638 Continuation-in-part of Ser. No. US 1993-112208, filed on 26 Aug 1993, now patented, Pat. No. US 5691179		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Huff, Sheela		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, L.C.		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	69 Drawing Figure(s); 45 Drawing Page(s)		
LINE COUNT:	4261		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 41 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:174374 USPATFULL  
TITLE: Recombinant production of immunoglobulin-like domains

INVENTOR(S): in prokaryotic cells  
Ward, E. Sally, Dallas, TX, United States  
Kim, Jin-Kyoo, Irving, TX, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System,  
Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6165745		20001226
APPLICATION INFO.:	US 1994-341560		19941117 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-963333, filed on 19 Oct 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-873930, filed on 24 Apr 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Scheiner, Laurie		
LEGAL REPRESENTATIVE:	Fulbright & Jaworski, LLP		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 23 Drawing Page(s)		
LINE COUNT:	2962		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 42 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:174366 USPATFULL  
TITLE: DNA fragmentation factor involved in apoptosis  
INVENTOR(S): Wang, Xiaodong, Dallas, TX, United States  
Liu, Xuesong, Dallas, TX, United States  
PATENT ASSIGNEE(S): The University of Texas System Board of Regents,  
Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6165737		20001226
APPLICATION INFO.:	US 1998-61702		19980416 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Achutamurthy, Ponnathapu		
ASSISTANT EXAMINER:	Moore, William W.		
LEGAL REPRESENTATIVE:	Fulbright & Jaworski L.L.P.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	5176		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 43 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:160817 USPATFULL  
TITLE: Serine protease polypeptides and materials and methods for making them  
INVENTOR(S): Sheppard, Paul O., Redmond, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6153420		20001128
APPLICATION INFO.:	US 1998-72384		19980504 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-62142, filed on 17 Apr 1998, now abandoned		

NUMBER	DATE

PRIORITY INFORMATION: US 1997-44185 19970424 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Achutamurthy, Ponnathapu  
ASSISTANT EXAMINER: Moore, William W.  
LEGAL REPRESENTATIVE: Parker, Gary E.  
NUMBER OF CLAIMS: 24  
EXEMPLARY CLAIM: 1  
LINE COUNT: 2037  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 44 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:160799 USPATFULL  
TITLE: Death domain containing receptors  
INVENTOR(S): Yu, Guo-Liang, Darnestown, MD, United States  
Ni, Jian, Rockville, MD, United States  
Gentz, Reiner L., Silver Spring, MD, United States  
Dillon, Patrick J., Gaithersburg, MD, United States  
PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6153402		20001128
APPLICATION INFO.:	US 1997-815469		19970311 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-13285	19960312 (60)
	US 1996-28711	19961017 (60)
	US 1997-37341	19970206 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Ulm, John	
LEGAL REPRESENTATIVE:	Sterne, Kessler, Goldstein & Fox, P.L.L.C.	
NUMBER OF CLAIMS:	61	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 10 Drawing Page(s)	
LINE COUNT:	3364	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 45 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:157631 USPATFULL  
TITLE: Transgenic animals expressing artificial epitope-tagged proteins  
INVENTOR(S): Prusiner, Stanley B., San Francisco, CA, United States  
Telling, Glenn C., San Francisco, CA, United States  
Cohen, Fred E., San Francisco, CA, United States  
Scott, Michael R., San Francisco, CA, United States  
PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6150583		20001121
APPLICATION INFO.:	US 1998-31168		19980226 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-660626, filed on 6 Jun 1996, now patented, Pat. No. US 5789655 which is a continuation-in-part of Ser. No. US 1995-521992, filed on 31 Aug 1995, now patented, Pat. No. US 5908969 which is a continuation-in-part of Ser. No. US 1995-509261, filed on 31 Jul 1995, now patented, Pat. No. US 5763740 which is a continuation-in-part of Ser. No. US 1994-242188, filed on 13 May 1994, now patented, Pat.		

No. US 5565186  
DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Carlson, Karen Cochrane  
LEGAL REPRESENTATIVE: Bozicevic, KarlBozicevic, Field & Francis LLP  
NUMBER OF CLAIMS: 2  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 6 Drawing Page(s)  
LINE COUNT: 1472  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 46 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:150140 USPATFULL  
TITLE: Lipocalin homologs  
INVENTOR(S): Conklin, Darrell C., Seattle, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6143720		20001107
APPLICATION INFO.:	US 1999-432335		19991102 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-130663, filed on 6 Aug 1998, now patented, Pat. No. US 6020163		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-54867	19970806 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Carlson, Karen Cochrane	
ASSISTANT EXAMINER:	Srivastava, Devesh	
LEGAL REPRESENTATIVE:	Sawislak, Deborah A.	
NUMBER OF CLAIMS:	5	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	2649	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 47 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:146351 USPATFULL  
TITLE: Hereditary hemochromatosis gene products  
INVENTOR(S): Thomas, Winston J., San Mateo, CA, United States  
Drayna, Dennis T., Bethesda, MD, United States  
Feder, John N., Mountain View, CA, United States  
Gnirke, Andreas, San Carlos, CA, United States  
Ruddy, David, San Francisco, CA, United States  
Tsuchihashi, Zenta, Menlo Park, CA, United States  
Wolff, Roger K., Mill Valley, CA, United States  
PATENT ASSIGNEE(S): Bio-Rad Laboratories, Inc., Hercules, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6140305		20001031
APPLICATION INFO.:	US 1997-834497		19970404 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-630912, filed on 4 Apr 1996, now abandoned And a continuation-in-part of Ser. No. US 1996-632673, filed on 16 Apr 1996, now patented, Pat. No. US 5712098 And a continuation-in-part of Ser. No. US 1996-652265, filed on 23 May 1996, now patented, Pat. No. US 6025130		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

PRIMARY EXAMINER: Saunders, David  
ASSISTANT EXAMINER: Tung, Mary B.  
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP  
NUMBER OF CLAIMS: 17  
EXEMPLARY CLAIM: 8  
NUMBER OF DRAWINGS: 22 Drawing Figure(s); 22 Drawing Page(s)  
LINE COUNT: 6106  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 48 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:146130 USPATFULL  
TITLE: Human thyroid protein zsig45  
INVENTOR(S): Deisher, Theresa A., Seattle, WA, United States  
Sheppard, Paul O., Redmond, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6140084		20001031
APPLICATION INFO.:	US 1998-203623		19981201 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-67263	19971203 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Carlson, Karen Cochrane	
ASSISTANT EXAMINER:	Schnizer, Holly	
LEGAL REPRESENTATIVE:	Johnson, Jennifer K.	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3515	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 49 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:131634 USPATFULL  
TITLE: Human prohormone convertase 4  
INVENTOR(S): Lok, Si, Seattle, WA, United States  
Jaspers, Stephen R., Edmonds, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6127162		20001003
APPLICATION INFO.:	US 1999-369617		19990806 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-71101, filed on 1 May 1998, now patented, Pat. No. US 6013503		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-44015	19970506 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Carlson, Karen Cochrane	
ASSISTANT EXAMINER:	Srivastava, Devesh	
LEGAL REPRESENTATIVE:	Johnson, Jennifer K.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 3 Drawing Page(s)	
LINE COUNT:	2424	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.



L8 ANSWER 50 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:131631 USPATFULL  
 TITLE: Mitofusin genes and their uses  
 INVENTOR(S): Fuller, Margaret T., Stanford, CA, United States  
 Hales, Karen G., Durham, NC, United States  
 PATENT ASSIGNEE(S): The Board of Trustees of the Leland Stanford Junior  
 University, Palo Alto, CA, United States (U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6127159		20001003
APPLICATION INFO.:	US 1998-90808		19980604 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-48961	19970606 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Achutamurthy, Ponnathapu	
ASSISTANT EXAMINER:	Rao, Manjunath N.	
LEGAL REPRESENTATIVE:	Sherwood, Pamela J.Bozicevic, Field & Francis	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	1864	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 51 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:124823 USPATFULL  
 TITLE: Human Delta3 nucleic acid molecules  
 INVENTOR(S): McCarthy, Sean Anthony, Boston, MA, United States  
 Gearing, David Paul, Wellesley, MA, United States  
 PATENT ASSIGNEE(S): Millennium Biotherapeutics, Inc., Cambridge, MA, United  
 States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6121045		20000919
APPLICATION INFO.:	US 1997-872855		19970611 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1997-832633, filed on 4 Apr 1997, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Duffy, Patricia A.		
LEGAL REPRESENTATIVE:	Foley, Hoag & Eliot, LLP, Arnold, Esq., Beth E., Clauss, Ph.D., Isabelle M.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	5656		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 52 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:124777 USPATFULL  
 TITLE: **Histidine** kinase two-component in Candida  
 albicans  
 INVENTOR(S): Abad, Antonio Jose C., Washington, DC, United States  
 Choi, Gil H., Rockville, MD, United States  
 Calderone, Richard A., Washington, DC, United States  
 PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, United  
 States (U.S. corporation)  
 The Georgetown University, Washington, DC, United  
 States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6120999		20000919
APPLICATION INFO.:	US 1998-112450		19980709 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-52273	19970710 (60)
	US 1998-74308	19980211 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Myers, Carla J.	
ASSISTANT EXAMINER:	Johannsen, Diana	
LEGAL REPRESENTATIVE:	Hoover, Kenley K.	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	5	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 21 Drawing Page(s)	
LINE COUNT:	3683	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 53 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:121286 USPATFULL  
 TITLE: Bioluminescent bioreporter integrated circuit  
 INVENTOR(S): Simpson, Michael L., Knoxville, TN, United States  
 Sayler, Gary S., Blaine, TN, United States  
 Paulus, Michael J., Knoxville, TN, United States  
 PATENT ASSIGNEE(S): UT Battelle, LLC, Oak Ridge, TX, United States (U.S. corporation)  
 The University of Tennessee Research Corp., Knoxville, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6117643		20000912
APPLICATION INFO.:	US 1997-978439		19971125 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Chin, Christopher L.		
LEGAL REPRESENTATIVE:	Williams, Morgan & Amerson, P.C.		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	43 Drawing Figure(s); 39 Drawing Page(s)		
LINE COUNT:	5414		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 54 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:114101 USPATFULL  
 TITLE: Protease-activated receptor PAR4 (ZCHEMR2)  
 INVENTOR(S): Xu, Wen-feng, Mukilteo, WA, United States  
 Presnell, Scott R., Seattle, WA, United States  
 Yee, David P., Seattle, WA, United States  
 Foster, Donald C., Seattle, WA, United States  
 PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6111075		20000829
APPLICATION INFO.:	US 1998-53866		19980401 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ulm, John		
LEGAL REPRESENTATIVE:	Leith, Debra K., Jones, Phillip B. C.		

NUMBER OF CLAIMS: 19  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
LINE COUNT: 2395  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 55 OF 101 USPATFULL

ACCESSION NUMBER: 2000:114094 USPATFULL  
TITLE: HIV-1 p-17 peptide fragments, compositions containing  
and methods for producing and using same  
INVENTOR(S): Zimmerman, Daniel H., Bethesda, MD, United States  
Sarin, Prem S., Gaithersburg, MD, United States  
PATENT ASSIGNEE(S): Viral Technologies, Inc., Vienna, VA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6111068		20000829
APPLICATION INFO.:	US 1997-824800		19970326 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-695301, filed on 9 Aug 1996		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Stucker, Jeffrey		
LEGAL REPRESENTATIVE:	Sherman & Shalloway		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	1882		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 56 OF 101 USPATFULL

ACCESSION NUMBER: 2000:105424 USPATFULL  
TITLE: Modified HGP-30 heteroconjugates, compositions and  
methods of use  
INVENTOR(S): Zimmerman, Daniel H., Bethesda, MD, United States  
Sarin, Prem S., Gaithersburg, MD, United States  
PATENT ASSIGNEE(S): CEL-SCI Corporation, Vienna, VA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6103239		20000815
APPLICATION INFO.:	US 1996-695304		19960809 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Stucker, Jeffrey		
LEGAL REPRESENTATIVE:	Shelman & Shalloway		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1879		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 57 OF 101 USPATFULL

ACCESSION NUMBER: 2000:102074 USPATFULL  
TITLE: Human prohormone convertase 4  
INVENTOR(S): Lok, Si, Seattle, WA, United States  
Jaspers, Stephen R., Edmonds, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6100041		20000808

APPLICATION INFO.: US 1999-369618 19990806 (9)  
RELATED APPLN. INFO.: Division of Ser. No. US 1998-71101, filed on 1 May  
1998, now patented, Pat. No. US 6013503

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-44015	19970506 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Carlson, Karen Cochrane	
ASSISTANT EXAMINER:	Srivastava, Devesh	
LEGAL REPRESENTATIVE:	Johnson, Jennifer K.	
NUMBER OF CLAIMS:	3	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 3 Drawing Page(s)	
LINE COUNT:	2339	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 58 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:87952 USPATFULL  
TITLE: Human E3 ubiquitin protein ligase  
INVENTOR(S): Hustad, Carolyn Marziasz, Wilmington, DE, United States  
Ghildyal, Namit, Kennett Square, PA, United States  
PATENT ASSIGNEE(S): Zeneca Limited, London, United Kingdom (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6087122		20000711
APPLICATION INFO.:	US 1999-357746		19990721 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-70060, filed on 30 Apr 1998, now patented, Pat. No. US 5976849		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-73839	19980205 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Elliott, George C.	
ASSISTANT EXAMINER:	Lacourciere, Karen A	
LEGAL REPRESENTATIVE:	Higgins, Esq., Patrick H.	
NUMBER OF CLAIMS:	12	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	2448	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 59 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:84424 USPATFULL  
TITLE: Polynucleotides encoding novel tumor antigens  
INVENTOR(S): Sheppard, Paul O., Redmond, WA, United States  
Grossmann, Angelika, Seattle, WA, United States  
PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6084088		20000704
APPLICATION INFO.:	US 1998-73569		19980506 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-45703	19970506 (60)
DOCUMENT TYPE:	Utility	

FILE SEGMENT: Granted  
PRIMARY EXAMINER: Burke, Julie  
ASSISTANT EXAMINER: Helms, Larry R  
LEGAL REPRESENTATIVE: Sawislak, Deborah A.  
NUMBER OF CLAIMS: 15  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 10 Drawing Page(s)  
LINE COUNT: 2612  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 60 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:80408 USPATFULL  
TITLE: Compositions for the prevention and treatment of  
verotoxin-induced disease  
INVENTOR(S): Williams, James A., Lincoln, NE, United States  
Byrne, Lisa Marie, Stoughton, WI, United States  
PATENT ASSIGNEE(S): Ophidian Pharmaceuticals, Inc., Wisconsin, United  
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6080400		20000627
APPLICATION INFO.:	US 1997-816977		19970313 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-410058, filed on 24 Mar 1995, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Housel, James C.		
ASSISTANT EXAMINER:	Devi, S.		
LEGAL REPRESENTATIVE:	Medlen & Carroll, LLP		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 9 Drawing Page(s)		
LINE COUNT:	5468		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 61 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:37612 USPATFULL  
TITLE: Mammalian pro-apoptotic Bok genes and their uses  
INVENTOR(S): Hsueh, Aaron J. W., Stanford, CA, United States  
Hsu, Sheau Yu, Mountain View, CA, United States  
PATENT ASSIGNEE(S): The Board of Trustees of the Leland Stanford Junior  
University, Palo Alto, CA, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6043055		20000328
APPLICATION INFO.:	US 1998-186250		19981104 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-64943	19971107 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Schwartzman, Robert A.	
LEGAL REPRESENTATIVE:	Bozicevic, Field & Francis LLP, Sherwood, Pamela	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	3 Drawing Figure(s); 3 Drawing Page(s)	
LINE COUNT:	2001	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 62 OF 101 USPATFULL

ACCESSION NUMBER: 2000:18630 USPATFULL  
 TITLE: Methods and compositions for the production of stably transformed, fertile monocot plants and cells thereof  
 INVENTOR(S): Lundquist, Ronald C., Minnetonka, MN, United States  
 Walters, David A., Groton, CT, United States  
 Spencer, T. Michael, Mystic, CT, United States  
 Mackey, Catherine J., Old Lyme, CT, United States  
 PATENT ASSIGNEE(S): Dekalb Genetics Corporation, Dekalb, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6025545		20000215
APPLICATION INFO.:	US 1995-440689		19950515 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-112245, filed on 25 Aug 1993 which is a continuation-in-part of Ser. No. US 1990-636089, filed on 28 Dec 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990-508045, filed on 11 Apr 1990, now patented, Pat. No. US 5484956 which is a continuation-in-part of Ser. No. US 1990-467983, filed on 22 Jan 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Benzion, Gary		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	45 Drawing Figure(s); 52 Drawing Page(s)		
LINE COUNT:	9943		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 63 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:18283 USPATFULL  
 TITLE: Secreted salivary zsig32 polypeptides  
 INVENTOR(S): Sheppard, Paul O., Redmond, WA, United States  
 PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6025197		20000215
APPLICATION INFO.:	US 1998-40786		19980318 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-41263	19970319 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Brusca, John S.	
LEGAL REPRESENTATIVE:	Lingenfelter, Susan E.	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	3096	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 64 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:18280 USPATFULL  
 TITLE: Nucleic acid sequence of senescence associated gene  
 INVENTOR(S): Funk, Walter, Hayward, CA, United States  
 PATENT ASSIGNEE(S): Geron Corporation, Menlo Park, CA, United States (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6025194 20000215  
 APPLICATION INFO.: US 1997-974180 19971119 (8)  
 DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Huff, Sheela  
 ASSISTANT EXAMINER: Bansal, Geetha P.  
 LEGAL REPRESENTATIVE: Earp, David J., Kaster, Kevin  
 NUMBER OF CLAIMS: 10  
 EXEMPLARY CLAIM: 1,6  
 LINE COUNT: 4667  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 65 OF 101 USPTAFULL  
 ACCESSION NUMBER: 2000:15623 USPTAFULL  
 TITLE: Secreted salivary zsig32 polypeptides  
 INVENTOR(S): Sheppard, Paul O., Redmond, WA, United States  
 PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6022847		20000208
APPLICATION INFO.:	US 1998-81180		19980519 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1998-40786, filed on 18 Mar 1998		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-41263	19970319 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Brusca, John S.	
LEGAL REPRESENTATIVE:	Lingenfelter, Susan E.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)	
LINE COUNT:	3052	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 66 OF 101 USPTAFULL  
 ACCESSION NUMBER: 2000:12626 USPTAFULL  
 TITLE: Lipocalin homolog  
 INVENTOR(S): Conklin, Darrell C., Seattle, WA, United States  
 PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6020163		20000201
APPLICATION INFO.:	US 1998-130663		19980806 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-54867	19970806 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Sisson, Bradley	
ASSISTANT EXAMINER:	Srivastava, Devesh	
LEGAL REPRESENTATIVE:	Sawislak, Deborah A.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	2645	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 67 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:12606 USPATFULL  
TITLE: Method for identifying substances that affect the  
interaction of a presenilin-1-interacting protein with  
a mammalian presenilin-1 protein  
INVENTOR(S): St. George-Hyslop, Peter H., Toronto, Canada  
Rommens, Johanna M., Toronto, Canada  
Fraser, Paul E., Toronto, Canada  
PATENT ASSIGNEE(S): Research and Development Limited Partnership, Toronto,  
Canada (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6020143		20000201
APPLICATION INFO.:	US 1997-888077		19970703 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-592541, filed on 26 Jan 1996		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-21673	19960705 (60)
	US 1996-21700	19960712 (60)
	US 1996-29895	19961108 (60)
	US 1997-34590	19970102 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Cochrane Carlson, Karen  
LEGAL REPRESENTATIVE: Darby & Darby  
NUMBER OF CLAIMS: 7  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 9 Drawing Page(s)  
LINE COUNT: 7847  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 68 OF 101 USPATFULL  
ACCESSION NUMBER: 2000:9709 USPATFULL  
TITLE: Positive and positive/negative cell selection mediated  
by peptide release  
INVENTOR(S): Tseng-Law, Janet, Whitter, CA, United States  
Kobori, Joan A., Pasadena, CA, United States  
Al-Abdaly, Fahad A., Torrance, CA, United States  
Guillermo, Roy, Carson, CA, United States  
Helgersson, Sam L., Pasadena, CA, United States  
Deans, Robert J., Claremont, CA, United States  
PATENT ASSIGNEE(S): Nexell Therapeutics, Inc., Irvine, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6017719		20000125
APPLICATION INFO.:	US 1995-482528		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-259427, filed on 14 Jun 1994, now abandoned		

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Green, Lora M.  
LEGAL REPRESENTATIVE: Campbell & Flores LLP  
NUMBER OF CLAIMS: 16  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)  
LINE COUNT: 4541  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.



L8 ANSWER 69 OF 101 USPATFULL  
 ACCESSION NUMBER: 2000:4666 USPATFULL  
 TITLE: Human prohormone convertase 4  
 INVENTOR(S): Lok, Si, Seattle, WA, United States  
 Jaspers, Stephen R., Edmonds, WA, United States  
 PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6013503		20000111
APPLICATION INFO.:	US 1998-71101		19980501 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Campbell, Eggerton A.		
ASSISTANT EXAMINER:	Srivastava, Devesh		
LEGAL REPRESENTATIVE:	Johnson, Jennifer K.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	2309		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 70 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:163474 USPATFULL  
 TITLE: Ubiquitin ligases, and uses related thereto  
 INVENTOR(S): Beach, David, Huntington Bay, NY, United States  
 Caligiuri, Maureen G., Huntington, NY, United States  
 Nefsky, Bradley, Highland Park, NJ, United States  
 PATENT ASSIGNEE(S): Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6001619		19991214
APPLICATION INFO.:	US 1995-539205		19951004 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Prouty, Rebecca E.		
LEGAL REPRESENTATIVE:	Foley, Hoag & Eliot, LLP, Vincent, Matthew P., Varma, Anita		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
LINE COUNT:	4765		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 71 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:151490 USPATFULL  
 TITLE: Methods and compositions for the production of stably transformed, fertile monocot plants and cells thereof  
 INVENTOR(S): Lundquist, Ronald C., Minnetonka, MN, United States  
 Walters, David A., Groton, CT, United States  
 Kirihiara, Julie A., Bloomington, MN, United States  
 PATENT ASSIGNEE(S): Dekalb Genetics Corporation, Dekalb, IL, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5990390		19991123
APPLICATION INFO.:	US 1996-622740		19960327 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-112245, filed on 25 Aug 1993 which is a continuation-in-part of Ser. No. US 1990-636089, filed on 28 Dec 1990 which is a		

continuation-in-part of Ser. No. US 1990-508045, filed on 11 Apr 1990, now patented, Pat. No. US 5484956 which is a continuation-in-part of Ser. No. US 1990-467989, filed on 22 Jan 1990, now patented, Pat. No. US 5081396

DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Benzion, Gary  
 LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner, and Kluth, P.A.  
 NUMBER OF CLAIMS: 18  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 55 Drawing Figure(s); 52 Drawing Page(s)  
 LINE COUNT: 9441  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 72 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:150969 USPATFULL  
 TITLE: FGF homologs  
 INVENTOR(S): Deisher, Theresa A., Seattle, WA, United States  
 Conklin, Darrell C., Seattle, WA, United States  
 Raymond, Fenella, Seattle, WA, United States  
 Bukowski, Thomas R., Seattle, WA, United States  
 Holderman, Susan D., Kirkland, WA, United States  
 Hansen, Birgit, Seattle, WA, United States  
 Sheppard, Paul O., Redmond, WA, United States  
 PATENT ASSIGNEE(S): ZymoGenetics, Inc., Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5989866		19991123
APPLICATION INFO.:	US 1997-951822		19971016 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-28646	19961016 (60)

DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Ulm, John  
 ASSISTANT EXAMINER: Saoud, Christine  
 LEGAL REPRESENTATIVE: Sawislak, Deborah A.  
 NUMBER OF CLAIMS: 15  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)  
 LINE COUNT: 2660  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 73 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:146531 USPATFULL  
 TITLE: Compositions and methods of use for osteoclast inhibitor factors  
 INVENTOR(S): Roodman, G. David, San Antonio, TX, United States  
 Reddy, Sakamuri V., San Antonio, TX, United States  
 Choi, Sun-Jin, San Antonio, TX, United States  
 PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5985832		19991116
APPLICATION INFO.:	US 1998-139424		19980825 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-772441, filed on 20 Dec 1996		

DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted

PRIMARY EXAMINER: Huff, Sheela  
LEGAL REPRESENTATIVE: Arnold, White & Durkee  
NUMBER OF CLAIMS: 7  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 17 Drawing Page(s)  
LINE COUNT: 3296  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 74 OF 101 USPATFULL  
ACCESSION NUMBER: 1999:136998 USPATFULL  
TITLE: Human E3 ubiquitin protein ligase  
INVENTOR(S): Hustad, Carolyn Marziasz, Wilmington, DE, United States  
Ghildyal, Namit, Kennett Square, PA, United States  
PATENT ASSIGNEE(S): Zeneca Limited, London, United Kingdom (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5976849		19991102
APPLICATION INFO.:	US 1998-70060		19980430 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-73839	19980205 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	LeGuyader, John L.	
ASSISTANT EXAMINER:	Shibuya, Mark L.	
LEGAL REPRESENTATIVE:	Higgins, Esq., Patrick H.	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 15 Drawing Page(s)	
LINE COUNT:	2634	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 75 OF 101 USPATFULL  
ACCESSION NUMBER: 1999:128369 USPATFULL  
TITLE: Positive and positive/negative cell selection mediated  
by peptide release  
INVENTOR(S): Tseng-Law, Janet, Whitter, CA, United States  
Kobori, Joan A., Pasadena, CA, United States  
Al-Abdaly, Fahad A., Torrance, CA, United States  
Guillermo, Roy, Carson, CA, United States  
Helgersen, Sam L., Pasadena, CA, United States  
Deans, Robert J., Claremont, CA, United States  
PATENT ASSIGNEE(S): Nexell Therapeutics, Inc., Irvine, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5968753		19991019
APPLICATION INFO.:	US 1995-482228		19950607 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-259427, filed on 14 Jun 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Green, Lora M.		
ASSISTANT EXAMINER:	Ricigliano, Joseph W.		
LEGAL REPRESENTATIVE:	Campbell & Flores, LLP		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	4650		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 76 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:113880 USPATFULL  
 TITLE: Cell death regulators  
 INVENTOR(S): Korsmeyer, Stanley J., St. Louis, MO, United States  
 PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5955595		19990921
APPLICATION INFO.:	US 1997-856034		19970514 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-112208, filed on 26 Aug 1993, now patented, Pat. No. US 5691179		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Bugaisky, Gabriele E.		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, LC		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	42 Drawing Figure(s); 25 Drawing Page(s)		
LINE COUNT:	3349		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 77 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:99638 USPATFULL  
 TITLE: Cell death regulators  
 INVENTOR(S): Korsmeyer, Stanley J., St. Louis, MO, United States  
 PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5942490		19990824
APPLICATION INFO.:	US 1997-856531		19970514 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1993-112208, filed on 26 Aug 1993, now patented, Pat. No. US 5691179		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Bugaisky, Gabriele E.		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, LC		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	42 Drawing Figure(s); 25 Drawing Page(s)		
LINE COUNT:	3449		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 78 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:89002 USPATFULL  
 TITLE: Compositions and methods for modulating cellular NF-.kappa.B activation  
 INVENTOR(S): Alkalay, Irit, Jerusalem, Israel  
 Ben-Neriah, Yinon, Zion, Israel  
 Ciechanover, Aaron, Haifa, Israel  
 Manning, Anthony, San Diego, CA, United States  
 Mercurio, Frank, San Diego, CA, United States  
 Yaron, Avraham, Jerusalem, Israel  
 PATENT ASSIGNEE(S): Signal Pharmaceuticals, Inc., San Diego, CA, United States (U.S. corporation)  
 Yisum Research Development Company of the Hebrew University of Jerusalem, Jerusalem, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5932425		19990803
APPLICATION INFO.:	US 1997-802322		19970218 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Degen, Nancy		
LEGAL REPRESENTATIVE:	Seed and Berry LLP		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	15 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	1321		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 79 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:75500 USPATFULL  
 TITLE: Methods and compositions for the use of  
 apurinic/apyrimidinic endonucleases  
 INVENTOR(S): Kelley, Mark R., Zionsville, IN, United States  
 Duguid, John, Brownsburg, IN, United States  
 Eble, John, Indianapolis, IN, United States  
 PATENT ASSIGNEE(S): Advanced Research & Technology Institute, Bloomington,  
 IN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5919643		19990706
APPLICATION INFO.:	US 1997-872719		19970611 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-19561	19960611 (60)
	US 1996-19602	19960611 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Patterson, Jr., Charles L.	
LEGAL REPRESENTATIVE:	Arnold, White & Durkee	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	57 Drawing Figure(s); 21 Drawing Page(s)	
LINE COUNT:	4677	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 80 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:43415 USPATFULL  
 TITLE: SpoIIIe polynucleotides  
 INVENTOR(S): Hodgson, John Edward, Malvern, PA, United States  
 Chalker, Alison Frances, Collegeville, PA, United States  
 PATENT ASSIGNEE(S): SmithKline Beecham, p.l.c., United Kingdom (non-U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5891667		19990406
APPLICATION INFO.:	US 1997-785431		19970117 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1996-955	19960117
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Hutzell, Paula K.	

ASSISTANT EXAMINER: Masood, Khalid  
 LEGAL REPRESENTATIVE: Gimmi, Edward R., King, William T., Jackson, Arthur E.  
 NUMBER OF CLAIMS: 9  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)  
 LINE COUNT: 1633  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 81 OF 101 USPATFULL

ACCESSION NUMBER: 1999:40580 USPATFULL  
 TITLE: Recombinant neospora antigens and their uses  
 INVENTOR(S): Conrad, Patricia A., Davis, CA, United States  
 Barr, Bradd C., Davis, CA, United States  
 Anderson, Mark L., Davis, CA, United States  
 Sverlow, Karen W., Vacaville, CA, United States  
 Louie, Kitland, Davis, CA, United States  
 PATENT ASSIGNEE(S): The Regents of the University of California, Oakland, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5889166		19990330
APPLICATION INFO.:	US 1996-645951		19960510 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Caputa, Anthony C.		
ASSISTANT EXAMINER:	Navarro, Mark		
LEGAL REPRESENTATIVE:	Townsend and Townsend and Crew LLP		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 3 Drawing Page(s)		
LINE COUNT:	1991		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 82 OF 101 USPATFULL

ACCESSION NUMBER: 1999:24504 USPATFULL  
 TITLE: Mammalian flap-specific endonuclease  
 INVENTOR(S): Harrington, John Joseph, 13700 Fairhill Rd. #514, Shaker Heights, OH, United States 44120  
 Hsieh, Chih-Lin, 11616 Clayton Rd., St. Louis, MO, United States 63131  
 Lieber, Michael R., 11616 Clayton Rd., St. Louis, MO, United States 63131  
 PATENT ASSIGNEE(S): Harrington, John Joseph, Cleveland, OH, United States (U.S. individual)  
 Lieber, Michael R., Arcadia, CA, United States (U.S. individual)  
 Hsieh, Chih-Lin, Arcadia, CA, United States (U.S. individual)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5874283		19990223
APPLICATION INFO.:	US 1995-455968		19950530 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Saidha, Tekchand		
LEGAL REPRESENTATIVE:	Townsend & Townsend & Crew		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	12 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	3891		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 83 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:18939 USPATFULL  
 TITLE: Single chain MHC complexes and uses thereof  
 INVENTOR(S): Rhode, Peter R., Miami, FL, United States  
 Jiao, Jin-An, Fort Lauderdale, FL, United States  
 Burkhardt, Martin, Miami, FL, United States  
 Wong, Hing C., Fort Lauderdale, FL, United States  
 PATENT ASSIGNEE(S): Sunol Molecular Corporation, Miami, FL, United States  
 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5869270		19990209
APPLICATION INFO.:	US 1996-596387		19960131 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Walsh, Stephen		
ASSISTANT EXAMINER:	Brown, Karen E.		
LEGAL REPRESENTATIVE:	Corless, Peter F., Buchanan, Robert L. Dike, Bronstein, Roberts & Cushman, LLP		
NUMBER OF CLAIMS:	38		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	82 Drawing Figure(s); 69 Drawing Page(s)		
LINE COUNT:	4930		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 84 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:7253 USPATFULL  
 TITLE: Treatment of diabetes mellitus and insulin receptor signal transduction  
 INVENTOR(S): Ullrich, Axel, Munchen, Germany, Federal Republic of  
 Lammers, Reiner, Munchen, Germany, Federal Republic of  
 Kharitononkov, Alexei Igorevich, Munchen, Germany, Federal Republic of  
 Sap, Jan M., New York, NY, United States  
 Schlessinger, Joseph, New York, NY, United States  
 PATENT ASSIGNEE(S): New York University, New York, NY, United States (U.S. corporation)  
 Max-Planck-Gesellschaft zur Forderung der Wissenschaften e.V., Munich, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5861266		19990119
APPLICATION INFO.:	US 1994-203189		19940228 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Rollins, John W.		
LEGAL REPRESENTATIVE:	Pennie & Edmonds LLP		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 11 Drawing Page(s)		
LINE COUNT:	1716		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 85 OF 101 USPATFULL  
 ACCESSION NUMBER: 1999:4437 USPATFULL  
 TITLE: Methods and reagents for regulating telomere length and telomerase activity  
 INVENTOR(S): Villeponteau, Bryant, San Carlos, CA, United States  
 Feng, Junli, San Carlos, CA, United States  
 Andrews, William H., Richmond, CA, United States

PATENT ASSIGNEE(S): Adams, Robert R., Redwood City, CA, United States  
Geron Corporation, Menlo Park, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5858777		19990112
APPLICATION INFO.:	US 1996-710249		19960913 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-583808, filed on 5 Jan 1996, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-3492	19950908 (60)
	US 1995-8949	19951020 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Wax, Robert A.	
ASSISTANT EXAMINER:	Saidha, Tekchand	
LEGAL REPRESENTATIVE:	Kaster, Kevin R.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 22 Drawing Page(s)	
LINE COUNT:	2766	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 86 OF 101 USPATFULL  
ACCESSION NUMBER: 1999:1508 USPATFULL  
TITLE: Cell death regulators  
INVENTOR(S): Korsmeyer, Stanley J., Clayton, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5856171		19990105
APPLICATION INFO.:	US 1994-337646		19941110 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-248819, filed on 25 May 1994, now patented, Pat. No. US 5700638 which is a continuation-in-part of Ser. No. US 1993-112208, filed on 26 Aug 1993, now patented, Pat. No. US 5691179		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Myers, Carla J.		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, L.C.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	10		
NUMBER OF DRAWINGS:	70 Drawing Figure(s); 45 Drawing Page(s)		
LINE COUNT:	4797		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 87 OF 101 USPATFULL  
ACCESSION NUMBER: 1999:1450 USPATFULL  
TITLE: Methods for identifying modulators of insulin receptor phosphorylation  
INVENTOR(S): Ullrich, Axel, Munchen, Germany, Federal Republic of  
Hoppe, Edmund, Krailling, Germany, Federal Republic of  
M.o slashed.ller, Niels Peter Hundahl, Munchen, Germany, Federal Republic of  
PATENT ASSIGNEE(S): Max-Planck-Gesellschaft Zur Forderung der Wissenschaften E.V., Munich, Germany, Federal Republic of (non-U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5856111	19990105
APPLICATION INFO.:	US 1996-751900	19961118 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-203218, filed on 28 Feb 1994, now abandoned	
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Teng, Sally P.	
LEGAL REPRESENTATIVE:	Pennie & Edmonds LLP	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 5 Drawing Page(s)	
LINE COUNT:	1008	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 88 OF 101 USPATFULL

ACCESSION NUMBER: 1998:159731 USPATFULL

TITLE: Tie ligand-3, methods of making and uses thereof

INVENTOR(S): Valenzuela, David M., Franklin Square, NY, United States  
 Jones, Pamela F., Fairfield, CT, United States  
 Yancopoulos, George D., Yorktown Heights, NY, United States

PATENT ASSIGNEE(S): Regeneron Pharmaceuticals, Inc., Tarrytown, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5851797		19981222
APPLICATION INFO.:	US 1996-665926		19960619 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Spector, Lorraine M.		
ASSISTANT EXAMINER:	Kaufman, Claire M.		
LEGAL REPRESENTATIVE:	Cobert, Robert J.		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	31 Drawing Figure(s); 23 Drawing Page(s)		
LINE COUNT:	2727		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 89 OF 101 USPATFULL

ACCESSION NUMBER: 1998:147547 USPATFULL

TITLE: Technique for joining amino acid sequences and novel composition useful in immunoassays

INVENTOR(S): Peterson, Darrell, Chesterfield, VA, United States

PATENT ASSIGNEE(S): Virginia Commonwealth University, Richmond, VA, United States (U.S. corporation)

	NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5840834		19981124
APPLICATION INFO.:	US 1994-360360		19941221 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Nucker, Christine M.		
ASSISTANT EXAMINER:	Stucker, Jeffrey		
LEGAL REPRESENTATIVE:	Whitham, Curtis, Whitham & McGinn		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	685		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 90 OF 101 USPATFULL

ACCESSION NUMBER: 1998:138690 USPATFULL

TITLE: Modified proteins comprising controllable intervening protein sequences or their elements methods of producing same and methods for purification of a target protein comprised by a modified protein

INVENTOR(S): Comb, Donald G., Manchester, MA, United States  
Perler, Francine B., Brookline, MA, United States  
Jack, William E., Wenham, MA, United States  
Xu, Ming-Qun, Hamilton, MA, United States  
Hodges, Robert A., Norcross, GA, United States  
Noren, Christopher J., Boxford, MA, United States  
Chong, Shaorong S. C., Beverly, MA, United States  
Adam, Eric, Beverly, MA, United States

PATENT ASSIGNEE(S): Southworth, Maurice, Beverly, MA, United States  
New England Biolabs, Inc., Beverly, MA, United States  
(U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5834247	19981110
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APPLICATION INFO.:	US 1997-811492	19970305 (8)
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RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-580555, filed on 29 Dec 1995, now abandoned which is a continuation-in-part of Ser. No. US 1995-496247, filed on 28 Jun 1995, now abandoned which is a continuation-in-part of Ser. No. US 1993-146885, filed on 3 Nov 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-4139, filed on 9 Dec 1992, now patented, Pat. No. US 5496714, issued on 5 Mar 1996	
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DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Wax, Robert A.

ASSISTANT EXAMINER: Moore, William W.

LEGAL REPRESENTATIVE: Williams, Gregory D.

NUMBER OF CLAIMS: 103

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 45 Drawing Figure(s); 35 Drawing Page(s)

LINE COUNT: 6946

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 91 OF 101 USPATFULL

ACCESSION NUMBER: 1998:138654 USPATFULL

TITLE: Bcl-x/bcl-2 associated cell death regulator

INVENTOR(S): Korsmeyer, Stanley J., Clayton, MO, United States

PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION:	US 5834209	19981110
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APPLICATION INFO.:	US 1996-661479	19960610 (8)
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RELATED APPLN. INFO.:	Division of Ser. No. US 1994-333565, filed on 31 Oct 1994, now patented, Pat. No. US 5622852 which is a continuation-in-part of Ser. No. US 1994-248819, filed on 25 May 1994, now patented, Pat. No. US 5700638 which is a continuation-in-part of Ser. No. US 1993-112208, filed on 26 Aug 1993, now patented, Pat. No. US 5691179	
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DOCUMENT TYPE: Utility

FILE SEGMENT: Granted

PRIMARY EXAMINER: Wax, Robert A.

ASSISTANT EXAMINER: Bugaisky, Gabriele E.

LEGAL REPRESENTATIVE: Howell & Haferkamp, L.C.

NUMBER OF CLAIMS: 20  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 34 Drawing Figure(s); 24 Drawing Page(s)  
LINE COUNT: 3791  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 92 OF 101 USPATFULL

ACCESSION NUMBER: 1998:104803 USPATFULL  
TITLE: Nucleic acid compositions encoding acetyl-coa  
carboxylase and uses therefor  
INVENTOR(S): Haselkorn, Robert, Chicago, IL, United States  
Gornicki, Piotr, Chicago, IL, United States  
PATENT ASSIGNEE(S): Arch Development Corporation, Chicago, IL, United  
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5801233		19980901
APPLICATION INFO.:	US 1996-611107		19960305 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-422560, filed on 14 Apr 1995 which is a continuation-in-part of Ser. No. US 1992-956700, filed on 2 Oct 1992, now patented, Pat. No. US 5539092		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Campell, Bruce R.		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		
NUMBER OF CLAIMS:	43		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	21 Drawing Figure(s); 21 Drawing Page(s)		
LINE COUNT:	5674		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 93 OF 101 USPATFULL

ACCESSION NUMBER: 1998:92267 USPATFULL  
TITLE: Transgenic animals expressing artificial epitope-tagged  
proteins  
INVENTOR(S): Prusiner, Stanley B., San Francisco, CA, United States  
Telling, Glenn C., San Francisco, CA, United States  
Cohen, Fred E., San Francisco, CA, United States  
Scott, Michael R., San Francisco, CA, United States  
PATENT ASSIGNEE(S): The Regents of the University of California, Alameda,  
CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5789655		19980804
APPLICATION INFO.:	US 1996-660626		19960606 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1995-521992, filed on 31 Aug 1995 which is a continuation-in-part of Ser. No. US 1995-509261, filed on 31 Jul 1995 which is a continuation-in-part of Ser. No. US 1994-242188, filed on 13 May 1994, now patented, Pat. No. US 5565186, issued on 15 Aug 1996		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Chambers, Jasmine C.		
ASSISTANT EXAMINER:	Clark, Deborah J. R.		
LEGAL REPRESENTATIVE:	Bozicevic & Reed LLP, Bozicevic, Esq., Karl		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1409		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 94 OF 101 USPATFULL  
ACCESSION NUMBER: 97:120456 USPATFULL  
TITLE: Cell death regulator  
INVENTOR(S): Korsmeyer, Stanley J., Clayton, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5700638		19971223
APPLICATION INFO.:	US 1994-248819		19940525 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-112208, filed on 26 Aug 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Bugaisky, Gabriele E.		
LEGAL REPRESENTATIVE:	Dunn, Tracy J.		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	21		
NUMBER OF DRAWINGS:	59 Drawing Figure(s); 35 Drawing Page(s)		
LINE COUNT:	4034		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 95 OF 101 USPATFULL  
ACCESSION NUMBER: 97:109743 USPATFULL  
TITLE: Cell death regulators  
INVENTOR(S): Korsmeyer, Stanley J., St. Louis, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5691179		19971125
APPLICATION INFO.:	US 1993-112208		19930826 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wax, Robert A.		
ASSISTANT EXAMINER:	Bugaisky, G. E.		
LEGAL REPRESENTATIVE:	Howell & Haferkamp, L.C.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	42 Drawing Figure(s); 25 Drawing Page(s)		
LINE COUNT:	3233		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L8 ANSWER 96 OF 101 USPATFULL  
ACCESSION NUMBER: 97:91340 USPATFULL  
TITLE: Immunoassay technique using **histidine** tags, metals, and chelating agents  
INVENTOR(S): Peterson, Darrell L., Chesterfield, VA, United States  
PATENT ASSIGNEE(S): The Center for Innovative Technology, Herndon, VA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5674677		19971007
APPLICATION INFO.:	US 1995-572441		19951214 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-360360, filed on 21 Dec 1994		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Nucker, Christine M.		

ASSISTANT EXAMINER: Stucker, Jeffrey  
LEGAL REPRESENTATIVE: Whitham, Curtis, Whitham & McGinn  
NUMBER OF CLAIMS: 9  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 1 Drawing Page(s)  
LINE COUNT: 637  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 97 OF 101 USPATFULL

ACCESSION NUMBER: 97:51973 USPATFULL  
TITLE: Peptide mediated enhancement of thrombolysis methods  
and compositions  
INVENTOR(S): Lawrence, Daniel A., Ann Arbor, MI, United States  
Ginsburg, David, Ann Arbor, MI, United States  
Shore, Joseph D., Grosse Point Farms, MI, United States  
Fay, William P., Ann Arbor, MI, United States  
Olson, Steven T., Chicago, IL, United States  
Francis-Chmura, Ann Marie, Warren, MI, United States  
Eitzman, Daniel T., Ypsilanti, MI, United States  
Paielli, Dell, Wyandotte, MI, United States  
PATENT ASSIGNEE(S): The Regents of the University of Michigan, Ann Arbor,  
MI, United States (U.S. corporation)  
Henry Ford Health System, Detroit, MI, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5639726		19970617
APPLICATION INFO.:	US 1994-315461		19940930 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Davenport, Avis M.		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		
NUMBER OF CLAIMS:	59		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	13 Drawing Figure(s); 10 Drawing Page(s)		
LINE COUNT:	4817		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 98 OF 101 USPATFULL

ACCESSION NUMBER: 97:33647 USPATFULL  
TITLE: Bcl-x/Bcl-2 associated cell death regulator  
INVENTOR(S): Korsmeyer, Stanley J., Clayton, MO, United States  
PATENT ASSIGNEE(S): Washington University, St. Louis, MO, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5622852		19970422
APPLICATION INFO.:	US 1994-333565		19941031 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Patterson, Jr., Charles L.		
ASSISTANT EXAMINER:	Bugaisky, G. E.		
LEGAL REPRESENTATIVE:	Dunn, Tracy J.		
NUMBER OF CLAIMS:	9		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	34 Drawing Figure(s); 15 Drawing Page(s)		
LINE COUNT:	3763		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 99 OF 101 MEDLINE

ACCESSION NUMBER: 96191313 MEDLINE  
DOCUMENT NUMBER: 96191313 PubMed ID: 8619901

TITLE: Double **tagging** recombinant A1- and A2A-adenosine receptors with hexahistidine and the FLAG epitope. Development of an efficient generic protein purification procedure.

AUTHOR: Robeva A S; Woodard R; Luthin D R; Taylor H E; Linden J

CORPORATE SOURCE: Department of Internal Medicine, University of Virginia Health Sciences Center, Charlottesville 22908, USA.

CONTRACT NUMBER: RO1-HL37942 (NHLBI)

SOURCE: BIOCHEMICAL PHARMACOLOGY, (1996 Feb 23) 51 (4) 545-55. Journal code: 9Z4; 0101032. ISSN: 0006-2952.

PUB. COUNTRY: ENGLAND: United Kingdom  
Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199606

ENTRY DATE: Entered STN: 19960620  
Last Updated on STN: 19980206  
Entered Medline: 19960613

L8 ANSWER 100 OF 101 USPATFULL

ACCESSION NUMBER: 95:45343 USPATFULL

TITLE: Drugs containing a glycosylated interleukin-2

INVENTOR(S): Roskam, deceased, Willem, late of Montgiscard, France  
by Nicole Brunot, legal representative  
Basuyaux, Bertrand, Courbevoie, France  
Ferrara, Pascual, Villefranche de Lauragais, France  
Laporte, Martine, Ramonville Saint-Agne, France  
Maureaud, Thierry, Auzielle, France  
Vita, Natalio, Toulouse, France  
Bayol, Alain, Tournefeuille, France  
Perry, Genevieve, Toulouse, France

PATENT ASSIGNEE(S): Sanofi, Paris, France (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5417970		19950523
APPLICATION INFO.:	US 1993-152886		19931116 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1991-715862, filed on 17 Jun 1991, now abandoned which is a continuation of Ser. No. US 1990-499472, filed on 21 Jun 1990, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1988-13865	19881021
	FR 1988-8905150	19881021
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Russel, Jeffrey E.	
LEGAL REPRESENTATIVE:	Foley & Lardner	
NUMBER OF CLAIMS:	25	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 9 Drawing Page(s)	
LINE COUNT:	1632	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

L8 ANSWER 101 OF 101 LIFESCI COPYRIGHT 2002 CSA

ACCESSION NUMBER: 96:63817 LIFESCI

TITLE: A highly specific and sensitive monoclonal antibody detecting **histidine**-tagged **recombinant proteins**

AUTHOR: Pogge von Strandmann, E.; Zoidl, C.; Nakhei, H.; Holewa, B.; Pogge von Strandmann, R.; Lorenz, P.; Klein-Hitpass, L.; Ryffel, G.U.

CORPORATE SOURCE: Inst. Zellbiol. (Tumorforsch). Universitaetsklin. Essen,

SOURCE: Hufelandstr. 55, D-45122 Essen, Germany  
PROTEIN ENG., (1995) vol. 8, no. 7, pp. 733-735.  
ISSN: 0269-2139.

DOCUMENT TYPE: Journal  
FILE SEGMENT: W2  
LANGUAGE: English  
SUMMARY LANGUAGE: English

=>

L3 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 1  
 ACCESSION NUMBER: 2002:69213 CAPLUS  
 TITLE: Immunity to placental malaria. III. Impairment of interleukin (IL)-12, not IL-18, and interferon-inducible protein-10 responses in the placental intervillous blood of human immunodeficiency virus/malaria-coinfected women  
 AUTHOR(S): Chaisavaneeyakorn, Sujittra; Moore, Julie M.; Otieno, Juliana; Chaiyaroj, Sansanee C.; Perkins, Douglas J.; Shi, Ya Ping; Nahlen, Bernard L.; Lal, Altaf A.; Udhayakumar, Venkatachalam  
 CORPORATE SOURCE: Division of Parasitic Diseases, National Center for Infectious Diseases, Atlanta, Switz.  
 SOURCE: Journal of Infectious Diseases (2002), 185(1), 127-131  
 CODEN: JIDIAQ; ISSN: 0022-1899  
 PUBLISHER: University of Chicago Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L3 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2  
 ACCESSION NUMBER: 2001:527197 CAPLUS  
 TITLE: Fc.gamma. receptor IIa (CD32) polymorphism is associated with protection of infants against high-density plasmodium falciparum infection. VII. Asembo bay cohort project  
 AUTHOR(S): Shi, Ya Ping; Nahlen, Bernard L.; Kariuki, Simon; Urdahl, Kevin B.; McElroy, Peter D.; Roberts, Jacqueline M.; Lal, Altaf A.  
 CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, National Centers for Infectious Diseases, Atlanta, GA, USA  
 SOURCE: J. Infect. Dis. (2001), 184(1), 107-111  
 CODEN: JIDIAQ; ISSN: 0022-1899  
 PUBLISHER: University of Chicago Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2002 ACS  
 ACCESSION NUMBER: 2000:145032 CAPLUS  
 DOCUMENT NUMBER: 132:206925  
 TITLE: Recombinant multivalent malarial vaccine against Plasmodium falciparum  
 INVENTOR(S): Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.  
 PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA; National Institute of Immunology  
 SOURCE: PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000011179	A1	20000302	WO 1999-US18869	19990819
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				



RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,  
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,  
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
AU 9957785 A1 20000314 AU 1999-57785 19990819  
EP 1105487 A1 20010613 EP 1999-945095 19990819  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: US 1998-97703 P 19980821  
WO 1999-US18869 W 19990819  
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE

3

ACCESSION NUMBER: 2000:389006 BIOSIS  
DOCUMENT NUMBER: PREV200000389006  
TITLE: Development, expression, and murine testing of a multistage  
Plasmodium falciparum malaria vaccine candidate.  
AUTHOR(S): Shi, Ya Ping; Das, Parimal; Holloway, Brian;  
Udhayakumar, Venkatachalam; Tongren, Jon Eric; Candal,  
Francisco; Biswas, Sukla; Ahmad, Raies; Hasnain, Seyed E.;  
Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Molecular Vaccine Section, Division of Parasitic  
Diseases, National Center for Infectious Diseases, Centers  
for Disease Control and Prevention, Public Health Service,  
United States Department of Health and Human Service,  
Atlanta, GA, 30341-3717 USA  
SOURCE: Vaccine, (15 June, 2000) Vol. 18, No. 25, pp. 2902-2914.  
print.  
ISSN: 0264-410X.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L3 ANSWER 5 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE

4

ACCESSION NUMBER: 1999:146248 BIOSIS  
DOCUMENT NUMBER: PREV199900146248  
TITLE: Immunogenicity and in vitro protective efficacy of a  
recombinant multistage Plasmodium falciparum candidate  
vaccine.  
AUTHOR(S): Shi, Ya Ping; Hasnain, Seyed E.; Sacci, John B.;  
Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay;  
Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William  
E.; Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Div. Parasitic Diseases, Mol. Vaccine Sect., Cent. Dis.  
Control Prevention, Mail Stop F-12, 4770 Buford Highway,  
Chamblee, GA 30341-3717 USA  
SOURCE: Proceedings of the National Academy of Sciences of the  
United States of America, (Feb. 16, 1999) Vol. 96, No. 4,  
pp. 1615-1620.  
ISSN: 0027-8424.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 6 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE

5

ACCESSION NUMBER: 1999:140596 BIOSIS  
DOCUMENT NUMBER: PREV199900140596  
TITLE: Differential effect and interaction of monocytes,  
hyperimmune sera, and immunoglobulin G on the growth of  
asexual stage Plasmodium falciparum parasites.  
AUTHOR(S): Shi, Ya Ping (1); Udhayakumar, Venkatchalam (1);  
Oloo, Aggrey J.; Nahlen, Bernard L.; Lal, Altaf A. (1)

CORPORATE SOURCE: (1) Immunol. Branch, Mol. Vaccine Sect., Div. Parasitic Dis., Natl. Cent. Infect. Dis., Cent. Dis. Control Prev., Building 22, Room 4, Mailstop F-12, 4770 Buford Highway, Atlanta, GA 30341 USA  
SOURCE: American Journal of Tropical Medicine and Hygiene, (Jan., 1999) Vol. 60, No. 1, pp. 135-141.  
ISSN: 0002-9637.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 7 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
6

ACCESSION NUMBER: 1998:322855 BIOSIS  
DOCUMENT NUMBER: PREV199800322855  
TITLE: Predicted and observed alleles of Plasmodium falciparum merozoite surface protein-1 (MSP-1), a potential malaria vaccine antigen.  
AUTHOR(S): Qari, Shoukat H. (1); Shi, Ya-Ping; Goldman, Ira F.; Nahlen, Bernard L.; Tibayrenc, Michel; Lal, Altaf A.  
CORPORATE SOURCE: (1) DASTLR, Centers Disease Control Prevention, Build. 15, Mail Stop G-19, 1600 Clifton Rd., Atlanta, GA 30333 USA  
SOURCE: Molecular and Biochemical Parasitology, (May 1, 1998) Vol. 92, No. 2, pp. 241-252.  
ISSN: 0166-6851.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 8 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
7

ACCESSION NUMBER: 1997:439694 BIOSIS  
DOCUMENT NUMBER: PREV199799738897  
TITLE: Cytotoxic T cell reactivity and HLA-B35 binding of the variant Plasmodium falciparum circumsporozoite protein CD8+ CTL epitope in naturally exposed Kenyan adults.  
AUTHOR(S): Udhayakumar, Venkatachalam (1); Ongecha, John M.; Shi, Ya-Ping; Aidoo, Michael; Orago, A. S. S.; Oloo, Aggrey J.; Hawley, William A.; Nahlen, Bernard L.; Hoffman, Stephen L.; Weiss, Walter R.; Lal, Altaf A.  
CORPORATE SOURCE: (1) Molecular Vaccine Section, Mail Stop F-12, CDC, Atlanta, GA 30341-3724 USA  
SOURCE: European Journal of Immunology, (1997) Vol. 27, No. 8, pp. 1952-1957.  
ISSN: 0014-2980.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 9 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
8

ACCESSION NUMBER: 1996:365928 BIOSIS  
DOCUMENT NUMBER: PREV199699088284  
TITLE: Natural immune response to the C-terminal 19-kilodalton domain of Plasmodium falciparum merozoite surface protein 1.  
AUTHOR(S): Shi, Ya Ping; Sayed, Umar; Qari, Shoukat H.; Roberts, Jacquelin M.; Udhayakumar, Venkatachalam; Oloo, Aggrey J.; Hawley, William A.; Kaslow, David C.; Nahlen, Bernard L.; Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Mail Stop F-12, Molecular Vaccine Sect., DPD, NCID, Centers Disease Control Prevention, 4770 Buford Hwy., Chamblee, GA 30341-3717 USA  
SOURCE: Infection and Immunity, (1996) Vol. 64, No. 7, pp. 2716-2723.  
ISSN: 0019-9567.  
DOCUMENT TYPE: Article

LANGUAGE: English

L3 ANSWER 10 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
9

ACCESSION NUMBER: 1996:269091 BIOSIS  
DOCUMENT NUMBER: PREV199698825220  
TITLE: Genetic conservation of the Plasmodium falciparum apical  
membrane antigen-1 (AMA-1.  
AUTHOR(S): Oliveira, Denise A.; Udhayakumar, Venkatachalam; Bloland,  
Peter; Shi, Ya Ping; Nahlen, Bernard L.; Oloo,  
Aggrey J.; Hawley, William E.; Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Div. Parasitic Diseases, Natl. Cent. Infectious  
Diseases, Cent. Disease Control Prevention, 4770 Buford  
Highway, Mail Stop F12, Chamblee, GA 30341 USA  
SOURCE: Molecular and Biochemical Parasitology, (1996) Vol. 76, No.  
1-2, pp. 333-336.  
ISSN: 0166-6851.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 11 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
10

ACCESSION NUMBER: 1996:412138 BIOSIS  
DOCUMENT NUMBER: PREV199699134494  
TITLE: Phylogenetic relationship among the malaria parasites based  
on small subunit rRNA gene sequences: Monophyletic nature  
of the human malaria parasite, Plasmodium falciparum.  
AUTHOR(S): Qari, Shoukat H.; Shi, Ya Ping; Pieniazek, Norman  
J.; Collins, William E.; Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Mol. Vaccine Section Immunol. Branch, Div. Parasitic  
Dis., CDC, Building 22, Mail Stop 12, 4770 Buford Highway,  
Atlanta, GA 30341 USA  
SOURCE: Molecular Phylogenetics and Evolution, (1996) Vol. 6, No.  
1, pp. 157-165.  
ISSN: 1055-7903.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 12 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
11

ACCESSION NUMBER: 1995:319673 BIOSIS  
DOCUMENT NUMBER: PREV199598333973  
TITLE: Identification of T and B cell epitopes recognized by  
humans in the C-terminal 42-kDa domain of the Plasmodium  
falciparum merozoite surface protein (MSP)-1.  
AUTHOR(S): Udhayakumar, Venkatachalam (1); Anyona, David; Kariuki,  
Simon; Shi, Ya Ping; Bloland, Peter B.; Branch,  
Oralee H.; Weiss, Walter; Nahlen, Bernard L.; Kaslow, David  
C.; Lal, Altaf A.  
CORPORATE SOURCE: (1) Mail Stop F-12, Cent. Dis. Control Prevention, 4770  
Buford Highway, Chamblee, GA 30341-3724 USA  
SOURCE: Journal of Immunology, (1995) Vol. 154, No. 11, pp.  
6022-6030.  
ISSN: 0022-1767.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 13 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
12

ACCESSION NUMBER: 1995:393502 BIOSIS  
DOCUMENT NUMBER: PREV199598407802  
TITLE: Sequence variations in the non-repetitive regions of the  
liver stage-specific antigen-1 (LSA-1) of Plasmodium  
falciparum from field isolates.

AUTHOR(S): Yang, Chunfu (1); **Shi, Ya-Ping**; Udhayakumar, Venkatachalam; Alpers, Michael P.; Pova, Marinete M.; Hawley, William A.; Collins, William E.; Lal, Altaf A.

CORPORATE SOURCE: (1) Immunol. Branch, Div. Parasitic Dis., Natl. Cent. Infectious Dis., Cent. Dis. Control Prevention, Public Health Serv., US Dep. Health Human Serv., Mail stop F-12, 1600 Clifton Rd., Atlanta, GA 30333 USA

SOURCE: Molecular and Biochemical Parasitology, (1995) Vol. 71, No. 2, pp. 291-294.  
ISSN: 0166-6851.

DOCUMENT TYPE: Article

LANGUAGE: English

L3 ANSWER 14 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
13

ACCESSION NUMBER: 1994:211391 BIOSIS

DOCUMENT NUMBER: PREV199497224391

TITLE: Antigenic diversity in the circumsporozoite protein of Plasmodium falciparum abrogates cytotoxic-T-cell recognition.

AUTHOR(S): Udhayakumar, Venkatachalam (1); **Shi, Ya-Ping**; Kumar, Sanjai; Jue, Danny L.; Wohlhueter, Robert M.; Lal, Altaf A.

CORPORATE SOURCE: (1) 4770 Buford Highway, Mail Stop F-12, Malaria Branch, Cent. Disease Control and Prevention, Atlanta, GA 30341 USA

SOURCE: Infection and Immunity, (1994) Vol. 62, No. 4, pp. 1410-1413.  
ISSN: 0019-9567.

DOCUMENT TYPE: Article

LANGUAGE: English

L3 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1996:432126 CAPLUS

DOCUMENT NUMBER: 125:84066

TITLE: Antigenic diversity in the circumsporozoite protein of human malaria parasites

AUTHOR(S): Udhayakumar, V.; **Shi, Ya-Ping**; Qari, Shoukat; Goldman, Ira; Collins, William E.; Lal, Altaf A.

CORPORATE SOURCE: Centers Disease Control and Prevention, National Center Infectious Diseases, Atlanta, USA

SOURCE: Recomb. Synth. Vaccines (1994), 117-124. Editor(s): Talwar, G. P.; Rao, Kanury V. S.; Chauhan, V. S. Narosa: New Delhi, India.  
CODEN: 63BLAX

DOCUMENT TYPE: Conference

LANGUAGE: English

L3 ANSWER 16 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
14

ACCESSION NUMBER: 1993:388854 BIOSIS

DOCUMENT NUMBER: PREV199396064154

TITLE: Natural antibody responses against the non-repeat-sequence-based B-cell epitopes of the Plasmodium falciparum circumsporozoite protein.

AUTHOR(S): **Shi, Ya Ping**; Udhayakumar, Venkatachalam; Alpers, Michael P.; Pova, Marinete M.; Oloo, Aggrey J.; Ruebush, Trenton K. II; Lal, Altaf A. (1)

CORPORATE SOURCE: (1) Malaria Branch, Div. Parasitic Dis., Natl. Cent. Infect. Dis., Cent. Dis. Control., Atlanta, GA 30333 USA

SOURCE: Infection and Immunity, (1993) Vol. 61, No. 6, pp. 2425-2433.  
ISSN: 0019-9567.

DOCUMENT TYPE: Article

LANGUAGE: English

L3 ANSWER 17 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
15

ACCESSION NUMBER: 1994:38292 BIOSIS  
DOCUMENT NUMBER: PREV199497051292  
TITLE: Global occurrence of Plasmodium vivax-like human malaria  
parasite.  
AUTHOR(S): Qari, Shoukat H. (1); **Shi, Ya-Ping**; Povia,  
Marinete M.; Alpers, Michael P.; Deloron, Philippe; Murphy,  
Gerald S.; Harjosuwarno, Slamet; Lal, Altaf A.  
CORPORATE SOURCE: (1) Malaria Branch, Cent. Dis. Control Prevention, 4770  
Buford Highway, Atlanta, GA 30341-3717 USA  
SOURCE: Journal of Infectious Diseases, (1993) Vol. 168, No. 6, pp.  
1485-1489.  
ISSN: 0022-1899.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 18 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
16

ACCESSION NUMBER: 1993:275360 BIOSIS  
DOCUMENT NUMBER: PREV199396005585  
TITLE: Identification of Plasmodium-vivax-like human malaria  
parasite.  
AUTHOR(S): Qari, Shoukat H.; **Shi, Ya-Ping**; Goldman, Ira F.;  
Udhayakumar, Venkatachalem; Alpers, Michael P.; Collins,  
William E.; Lal, Altaf A. (1)  
CORPORATE SOURCE: (1) Malaria Branch, 4770 Buford Highway, Cent. Dis.  
Control, Chamblee, GA 30341 USA  
SOURCE: Lancet (North American Edition), (1993) Vol. 341, No. 8848,  
pp. 780-783.  
ISSN: 0099-5355.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 19 OF 20 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
17

ACCESSION NUMBER: 1993:146977 BIOSIS  
DOCUMENT NUMBER: PREV199395079777  
TITLE: Diversity in the immunodominant determinants of the  
circumsporozoite protein of Plasmodium falciparum parasites  
from malaria-endemic regions of Papua New Guinea and  
Brazil.  
AUTHOR(S): **Shi, Ya-Ping (1)**; Alpers, Michael P.; Povia,  
Marinete M.; Lal, Altaf A.  
CORPORATE SOURCE: (1) Malaria Branch, Division Parasitic Diseases, National  
Center Infectious Diseases, Centers Disease Control,  
Atlanta, GA 30333  
SOURCE: American Journal of Tropical Medicine and Hygiene, (1992)  
Vol. 47, No. 6, pp. 844-851.  
ISSN: 0002-9637.  
DOCUMENT TYPE: Article  
LANGUAGE: English

L3 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 18

ACCESSION NUMBER: 1992:56911 CAPLUS  
DOCUMENT NUMBER: 116:56911  
TITLE: Single amino acid variation in the ookinete vaccine  
antigen from field isolates of Plasmodium falciparum  
AUTHOR(S): **Shi, Ya Ping**; Alpers, Michael P.; Povia,  
Marinette M.; Lal, Altaf A.  
CORPORATE SOURCE: Malar. Branch, Cent. Dis. Control, Atlanta, GA, 30333,  
USA

SOURCE: Mol. Biochem. Parasitol. (1992), 50(1), 179-80  
CODEN: MBIPDP; ISSN: 0166-6851  
DOCUMENT TYPE: Journal  
LANGUAGE: English

=>

19 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

AN 2000:145032 CAPLUS

DN 132:206925

TI **Recombinant** multivalent malarial vaccine against Plasmodium falciparum

IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.

PA United States Dept. of Health and Human Services, USA; National Institute of Immunology

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000011179	A1	20000302	WO 1999-US18869	19990819
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9957785	A1	20000314	AU 1999-57785	19990819
	EP 1105487	A1	20010613	EP 1999-945095	19990819
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

AN 1999:150918 CAPLUS

DN 130:310369

TI Immunogenicity and in vitro protective efficacy of a **recombinant** multistage Plasmodium falciparum candidate vaccine

AU Shi, Ya Ping; Hasnain, Seyed E.; Sacci, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A.

CS Division of Parasitic Diseases, Centers for Disease Control and Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(4), 1615-1620

CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

AN 1996:463347 BIOSIS

DN PREV199699185703

TI NYVAC-Pf7: A poxvirus-vectored, multiantigen, multistage vaccine candidate for Plasmodium falciparum malaria.

AU Tine, John A.; Lanar, David E.; Smith, Darlene M.; Wellde, Bruce T.; Schultheiss, Peter; Ware, Lisa A.; Kauffman, Elizabeth B.; Wirtz, Robert A.; De Taisne, Charles; Hui, George S. N.; Chang, Sandra P.; Church, Preston; Hollingdale, Michael R.; Kaslow, David C.; Hoffman, Stephen;

monocytes. These observations demonstrate that a multicomponent, multistage malaria vaccine can induce immune responses that inhibit parasite development of a multiple stages. The rationale and approach used in the development of a multicomponent *P. falciparum* vaccine will be useful in the development of a multispecies human malaria vaccine and vaccines against other infectious diseases.

AN 1999:150918 CAPLUS  
DN 130:310369  
TI Immunogenicity and in vitro protective efficacy of a **recombinant**  
multistage *Plasmodium falciparum* candidate vaccine  
AU Shi, Ya Ping; Hasnain, Seyed E.; Sacchi, John B.; Holloway, Brian P.;  
Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.;  
Collins, William E.; Lal, Altaf A.  
CS Division of Parasitic Diseases, Centers for Disease Control and  
Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333,  
USA  
SO Proceedings of the National Academy of Sciences of the United States of  
America (1999), 96(4), 1615-1620  
CODEN: PNASA6; ISSN: 0027-8424  
PB National Academy of Sciences  
DT Journal  
LA English  
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

AB The highly attenuated NYVAC vaccinia virus strain has been utilized to develop a multiantigen, multistage vaccine candidate for malaria, a disease that remains a serious global health problem and for which no highly effective vaccine exists. Genes encoding seven *Plasmodium falciparum* antigens derived from the sporozoite (circumsporozoite protein and sporozoite surface protein 2), liver (**liver stage antigen** 1), blood (merozoite surface protein 1, serine repeat antigen, and **apical membrane antigen** 1), and sexual (25-kDa sexual-stage antigen) stages of the parasite life cycle were inserted into a single NYVAC genome to generate NYVAC-Pf7. Each of the seven antigens was expressed in NYVAC-Pf7-infected culture cells, and the genotypic and phenotypic stability of the **recombinant** virus was demonstrated. When inoculated into rhesus monkeys, NYVAC-Pf7 was safe and well tolerated. Antibodies that recognize sporozoites, liver, blood, and sexual stages of *P. falciparum* were elicited. Specific antibody responses against four of the *P. falciparum* antigens (circumsporozoite protein, sporozoite surface protein 2, merozoite surface protein 1, and 25-kDa sexual-stage antigen) were characterized. The results demonstrate that NYVAC-Pf7 is an appropriate candidate vaccine for further evaluation in human clinical trials.

AN 1996:463347 BIOSIS  
DN PREV199699185703  
TI NYVAC-Pf7: A poxvirus-vectored, multiantigen, multistage vaccine candidate for *Plasmodium falciparum* malaria.  
AU Tine, John A.; Lanar, David E.; Smith, Darlene M.; Wellde, Bruce T.;  
Schultheiss, Peter; Ware, Lisa A.; Kauffman, Elizabeth B.; Wirtz, Robert A.; De Taisne, Charles; Hui, George S. N.; Chang, Sandra P.; Church, Preston; Hollingdale, Michael R.; Kaslow, David C.; Hoffman, Stephen; Guito, Kenneth P.; Ballou, W. Ripley; Sadoff, Jerald C.; Paoletti, Enzo  
CS Inq. Inq. USA  
SO Infection and Immunity, (1996) Vol. 64, No. 9, pp. 3833-3844.  
ISSN: 0019-9567.  
DT Article  
LA English

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Guito, Kenneth P.; Ballou, W. Ripley; Sadoff, Jerald C.; Paoletti, Enzo  
CS Inq. Inq. USA  
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L18 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS

AB A **recombinant** protein is provided which comprises peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite Plasmodium falciparum. A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (MSP-1, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (CSP and SSP-2), and the gametocyte stage (Pfg27).

AN 2000:145032 CAPLUS

DN 132:206925

TI **Recombinant** multivalent malarial vaccine against Plasmodium falciparum

IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.

PA United States Dept. of Health and Human Services, USA; National Institute of Immunology

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000011179	A1	20000302	WO 1999-US18869	19990819
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
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	AU 9957785	A1	20000314	AU 1999-57785	19990819
	EP 1105487	A1	20010613	EP 1999-945095	19990819
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS

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AN 1999:150918 CAPLUS  
DN 130:310369  
TI Immunogenicity and in vitro protective efficacy of a **recombinant**  
multistage *Plasmodium falciparum* candidate vaccine  
AU Shi, Ya Ping; Hasnain, Seyed E.; Sacchi, John B.; Holloway, Brian P.;  
Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.;  
Collins, William E.; Lal, Altaf A.  
CS Division of Parasitic Diseases, Centers for Disease Control and  
Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333,  
USA  
SO Proceedings of the National Academy of Sciences of the United States of  
America (1999), 96(4), 1615-1620  
CODEN: PNASA6; ISSN: 0027-8424  
PB National Academy of Sciences  
DT Journal  
LA English  
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 4 USPATFULL

AB An IgG1 monoclonal antibody, Navy Yoelii Liver Stage 3 (NYLS3) does not recognize sporozoites, but recognizes *P. yoelii* liver stage parasites within 6 hours of invasion of mouse hepatocytes, and throughout the hepatic and asexual erythrocytic stages of the life cycle. When added to primary cultures of mouse hepatocytes 24 hours after inoculation with *P. yoelii* sporozoites, when all sporozoites have invaded hepatocytes, NYLS3 eliminates up to 98% of liver stage parasites. Intravenous injection of NYLS3 into mice delays the onset and reduces the density of blood stage parasitemia after sporozoite or blood stage challenge. The protein, recognized by this mAb is identified and designated *P. yoelii* hepatic and erythrocytic stage protein, 17-kDa or PyHEP17. The gene encoding PyHEP17 and a DNA vaccine comprising exons of the DNA that encodes PyHEP17 are disclosed. A DNA vaccine consisting of exon 1 and part of exon 2 of the gene encoding PyHEP17 protects 86% of A/J mice, 33%-43% of B10.BR mice, 17%-29% of BALB/c mice and 14%-20% of B10.Q mice from development of blood-stage parasitemia. A combination of DNA vaccines consisting of a PyHEP17 DNA vaccine and a PyCSP DNA vaccine confers complete protection against development of blood-stage parasitemia in BALB/c mice and 71% protection in A/J and B10.BR mice. This DNA vaccine-induced protection may be additive. Combinations of other malaria antigens are covered. The application discloses the *P. falciparum* homolog of PyHEP17 and includes the means of identification of the PyHEP17 homologs of the other *Plasmodium* species which infect humans, specifically *P. vivax*, *P. ovale* and *P. malariae*.

AN 1998:119133 USPATFULL  
TI Protective 17 KDA malaria hepatic and erythrocytic stage immunogen and gene  
IN Hoffman, Stephen L., Gaithersburg, MD, United States  
Charoenvit, Yupin, Silver Spring, MD, United States  
Hedstrom, Richard C., Gaithersburg, MD, United States  
Doolan, Denise L., Rockville, MD, United States  
PA The United States of America as represented by the Secretary of the  
Navy, Washington, DC, United States (U.S. government)  
PI US 5814617 19980929  
AI US 1994-319704 19941007 (8)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Cunningham, Thomas M.

LREP Spevack, A. David  
CLMN Number of Claims: 11  
ECL Exemplary Claim: 1  
DRWN 17 Drawing Figure(s); 7 Drawing Page(s)  
LN.CNT 1590  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

AB The highly attenuated NYVAC vaccinia virus strain has been utilized to develop a multiantigen, multistage vaccine candidate for malaria, a disease that remains a serious global health problem and for which no highly effective vaccine exists. Genes encoding seven Plasmodium falciparum antigens derived from the sporozoite (circumsporozoite protein and sporozoite surface protein 2), liver (**liver stage antigen 1**), blood (**merozoite surface protein 1**, serine repeat antigen, and apical membrane antigen 1), and sexual (25-kDa sexual-stage antigen) stages of the parasite life cycle were inserted into a single NYVAC genome to generate NYVAC-Pf7. Each of the seven antigens was expressed in NYVAC-Pf7-infected culture cells, and the genotypic and phenotypic stability of the **recombinant** virus was demonstrated. When inoculated into rhesus monkeys, NYVAC-Pf7 was safe and well tolerated. Antibodies that recognize sporozoites, liver, blood, and sexual stages of P. falciparum were elicited. Specific antibody responses against four of the P. falciparum antigens (circumsporozoite protein, sporozoite surface protein 2, **merozoite surface protein 1**, and 25-kDa sexual-stage antigen) were characterized. The results demonstrate that NYVAC-Pf7 is an appropriate candidate vaccine for further evaluation in human clinical trials.

AN 1996:463347 BIOSIS

DN PREV199699185703

TI NYVAC-Pf7: A poxvirus-vectored, multiantigen, multistage vaccine candidate for Plasmodium falciparum malaria.

AU Tine, John A.; Lanar, David E.; Smith, Darlene M.; Wellde, Bruce T.; Schultheiss, Peter; Ware, Lisa A.; Kauffman, Elizabeth B.; Wirtz, Robert A.; De Taisne, Charles; Hui, George S. N.; Chang, Sandra P.; Church, Preston; Hollingdale, Michael R.; Kaslow, David C.; Hoffman, Stephen; Guito, Kenneth P.; Ballou, W. Ripley; Sadoff, Jerald C.; Paoletti, Enzo

CS Inq. Inq. USA

SO Infection and Immunity, (1996) Vol. 64, No. 9, pp. 3833-3844.  
ISSN: 0019-9567.

DT Article

LA English

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L19 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

AB A **recombinant** protein is provided which comprises peptides derived from different stages in the life cycle of the parasite *Plasmodium falciparum*. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite *Plasmodium falciparum*. A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite *Plasmodium falciparum*. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (MSP-1, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (CSP and SSP-2), and the gametocyte stage (Pfg27).

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DN 132:206925

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IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.

PA United States Dept. of Health and Human Services, USA; National Institute of Immunology

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2000011179	A1	20000302	WO 1999-US18869	19990819
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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	AU 9957785	A1	20000314	AU 1999-57785	19990819
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	JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		

RE.CNT 2 . THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
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L19 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS

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L39 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS

AB A **recombinant** protein is provided which comprises peptides derived from different stages in the life cycle of the parasite *Plasmodium falciparum*. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite *Plasmodium falciparum*. A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite *Plasmodium falciparum*. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (MSP-1, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (CSP and SSP-2), and the gametocyte stage (Pfg27).

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DT Patent

LA English

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	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
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	JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		

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L39 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

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AN 1999:150918 CAPLUS

DN 130:310369

TI Immunogenicity and in vitro protective efficacy of a **recombinant** multistage Plasmodium falciparum candidate vaccine

AU Shi, Ya Ping; Hasnain, Seyed E.; Sacci, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A.

CS Division of Parasitic Diseases, Centers for Disease Control and Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(4), 1615-1620  
CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
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L38 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS

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CODEN: PIXXD2

DT Patent

LA English

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	EP 1105487	A1	20010613	EP 1999-945095	19990819
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PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		

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L38 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS

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SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(4), 1615-1620  
CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
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L38 ANSWER 3 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

AB The processing and localization of *Plasmodium falciparum* **rho**try-**associated protein 1** (RAP-1) products were examined using polyclonal and monoclonal antibodies raised to a **recombinant** protein containing residues 1-294 of RAP-1. Immunoblot and epitope mapping results with antibodies that selectively bound epitopes in the RAP-1 products Pr86, p82, and p67 showed that p82 and p67 are formed from Pr86 by progressive removal of epitopes from the amino-terminus of the RAP-1 coding sequence. The capacity of Pr86 to form complexes was revealed after size fractionation of parasite proteins radiolabeled in the presence of brefeldin A to prevent processing of Pr86. Fractions containing complexed Pr86 also contained the RAP-2 product p39 and the RAP-3 product p37, suggesting that Pr86, p39 and p37 may form complexes similar to complexes previously reported for p82 and p67 with p39 or p37. Immunofluorescence localization and immunoblot studies revealed that Pr86 is present in the rhotries, but only transiently, and that it is not detected in segmenting schizonts or extracellular merozoites. p67 and p82, on the other hand, were shown to be major RAP-1 components in purified merozoites. Neither p67 nor p82 were relocalized from the intracellular rhotries to the merozoite surface under conditions that promoted relocalization of the rhotry protein PF83/**apical membrane antigen**

1. These results suggest that processing of Pr86 begins after Pr86 complexes are transported to the forming rhotries and that two site-selective processing reactions occur in the rhotries, a rapid cleavage of Pr86 to p82 and a delayed cleavage of p82 to p67. Since p67 is missing from ring-stage parasites (Howard et al., Am J Trop Med Hyg, 1984;33:1055-59), the present results indicate there is a narrow time during which p67 may play a role in merozoite invasion of erythrocytes.

AN 1998:229264 BIOSIS

DN PREV199800229264

TI Analysis of the processing of *Plasmodium falciparum* **rho**try-**associated protein 1** and localization of Pr86 to schizont rhotries and p67 to free merozoites.

AU Howard, Randall F. (1); Narum, David L.; Blackman, Michael; Thurman, Joyce

CS (1) Seattle Biomed. Res. Inst., 4 Nickerson St., Seattle, WA 98117 USA

SO Molecular and Biochemical Parasitology, (April 1, 1998) Vol. 92, No. 1, pp. 111-122.

ISSN: 0166-6851.

DT Article

LA English

L38 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2  
AB

PfPK4, a protein kinase gene from the human malarial parasite *Plasmodium falciparum*, has been cloned utilizing oligonucleotide probing. The gene encodes a protein of a predicted length of 1123 amino acids, and within this amino acid sequence all the conserved regions characteristic of protein kinases can be identified. The catalytic kinase domain possesses highest identities (34-37%) with eukaryotic initiation factor-2alpha (eIF-2alpha) kinases, especially haem-regulated inhibitory (HRI) protein kinases. There are two kinase inserts in PfPK4, located at positions common to eIF-2alpha kinases. The first insert separates kinase subdomains IV and VI by 559 amino acids, and the second subdomains VII and VIII by 41 amino acids. Both inserts are larger than their homologues in eIF-2alpha kinases. The sequence of PfPK4 has one putative haemin-binding site. The **recombinant** protein, expressed in *Escherichia coli*, phosphorylates a synthetic peptide representing a substrate of eIF-2alpha kinases. Autophosphorylation and substrate phosphorylation are inhibited by haemin. Thus PfPK4 appears to be the first protozoan protein kinase related to eIF-2alpha kinases and might be the first non-mammalian HRI kinase. Western blots indicated that the protein is expressed as major forms of 80 and 90 kDa. Whereas the 80 kDa form is present throughout the intraerythrocytic development and in merozoites, the two 90 kDa forms are only found in mature parasites. One of the latter is also present in the membrane fraction of erythrocytes harbouring segmenters. Confocal microscopy detected the protein distributed throughout the trophozoite, whereas it was found in discrete foci (punctate distribution) in segmenters. PfPK4 co-localizes with *P. falciparum* 83 kDa antigen/**apical membrane antigen-1** at the apical complex in segmenters and merozoites, but does not co-localize with **rhoptry-associated protein-1**.

AN 1998:46185 BIOSIS

DN PREV199800046185

TI Molecular cloning, characterization and localization of PfPK4, an eIF-2alpha kinase-related enzyme from the malarial parasite *Plasmodium falciparum*.

AU Mohrle, Jorg J.; Zhao, Yi; Wernli, Barbara; Franklin, Richard M.; Kappes, Barbara (1)

CS (1) Swiss Tropical Inst., Socinstrasse 57, CH-4002 Basel Switzerland

SO Biochemical Journal, (Dec. 1, 1997) Vol. 328, No. 2, pp. 677-687.

ISSN: 0264-6021.

DT Article

LA English

L38 ANSWER 5 OF 6 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

AB Because of the increasing problems of resistance to chemicals and chemical residues, preventative vaccination has increasing appeal as a way to control parasite infestations in humans and in animals. Such vaccines are now feasible through the application of genetic engineering technology to allow production of parasite protective antigens in microorganisms in commercially viable quantities at an acceptable cost. This concept is illustrated by describing research toward subunit vaccines against human malaria (*P. falciparum*) and against the tropical cattle tick (*B. microplus*). Although the concept is straightforward, difficulties include the identification of a protective antigen, refolding of the initial microbial product to achieve the native conformation, and its formulation to produce a vaccine eliciting an adequate and appropriate immune response.

AN 94168661 EMBASE

DN 1994168661

TI Microorganisms in the development of subunit vaccines against parasites.

AU Willetts N.

CS Biotech Australia Pty. Ltd., P.O. Box 20, Roseville, Sydney, Australia

SO Critical Reviews in Microbiology, (1994) 20/2 (79-85).

ISSN: 1040-841X CODEN: CRVMAC  
CY United States  
DT Journal; General Review  
FS 004 Microbiology  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LA English  
SL English

L38 ANSWER 6 OF 6 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
AN 94150764 EMBASE  
DN 1994150764  
TI The promise of asexual malaria vaccine development.  
AU Pasloske B.L.; Howard R.J.  
CS Affymax Research Institute, 3410 Central Expressway, Santa Clara, CA 95051,  
United States  
SO American Journal of Tropical Medicine and Hygiene, (1994) 50/4 SUPPL.  
(3-10).

ISSN: 0002-9637 CODEN: AJTHAB  
CY United States  
DT Journal; Conference Article  
FS 004 Microbiology  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LA English

=>

37 ANSWER 1 OF 5 USPATFULL

AB Compositions that inhibit the binding of Plasmodium falciparum to erythrocytes include a family of erythrocyte binding proteins (EBPs). The EBPs are paralogues of the P. falciparum binding protein EBA-175. The present invention includes peptides of the paralogues that prevent the binding of P. falciparum. Antibodies specific for each paralogue that also prevent the binding of P. falciparum are also included. Methods of the invention utilize the paralogues, antibodies thereof and peptide compositions for the diagnosis, prevention, and treatment of P. falciparum diseases such as malaria, as well as methods for the detection of P. falciparum in biological samples and culture media.

AN 2002:235058 USPATFULL

TI Anti-plasmodium compositions and methods of use

IN Narum, David L., Gaithersburg, MD, UNITED STATES  
Sim, Kim L., Gaithersburg, MD, UNITED STATES

PI US 2002127241 A1 20020912

AI US 2001-924154 A1 20010807 (9)

PRAI US 2000-223525P 20000807 (60)

DT Utility

FS APPLICATION

LREP JOHN S. PRATT, ESQ, KILPATRICK STOCKTON, LLP, 1100 PEACHTREE STREET, SUITE 2800, ATLANTA, GA, 30309

CLMN Number of Claims: 20

ECL Exemplary Claim: 1

DRWN 8 Drawing Page(s)

LN.CNT 1391

L37 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

AB Malaria parasites invade erythrocytes in a process mediated by a series of molecular interactions. Invasion of human erythrocytes by Plasmodium vivax is dependent upon the presence of a single receptor, but P. falciparum, as well as some other species, exhibits the ability to utilize multiple alternative pathways. Conserved cysteine-rich domains play important roles at critical times during this invasion process and at other stages in the life cycle of malaria parasites. Duffy-binding-like (DBL) domains, expressed as a part of the erythrocyte-binding proteins (DBL-EBP), are such essential cysteine-rich ligands that recognize specific host cell surface receptors. DBL-EBP, which are products of the erythrocyte-binding-like (ebl) gene family act as critical determinants of erythrocyte specificity and are the best-defined ligands from invasive stages of malaria parasites. The ebl genes include the P. falciparum **erythrocyte-binding antigen-175** (EBA-175) and P. vivax Duffy-binding protein. DBL domains also mediate cytoadherence as a part of the variant erythrocytic membrane protein-1 (PfEMP-1) antigens expressed from var genes on the surface of P. falciparum-infected erythrocytes. A paralogue of the ebl family is the malarial ligand MAEBL, which has a **chimeric** structure where the DBL domain is functionally replaced with a distinct cysteine-rich erythrocyte-binding domain with similarity to the **apical membrane antigen-1** (AMA-1) ligand domain. The Plasmodium AMA-1 ligand domain, which encompasses the extracellular cysteine domains 1 and 2 and is well conserved in a Toxoplasma gondii AMA-1, has erythrocyte-binding activity distinct from that of MAEBL. These important families of Plasmodium molecules (DBL-EBP, PfEMP-1, MAEBL, AMA-1) are interrelated through the MAEBL. Because MAEBL and the other ebl products have the characteristics expected of homologous ligands involved in equivalent alternative invasion pathways to each other, we sought to better understand their roles during invasion by determining their relative origins in the Plasmodium genome. An analysis of their multiple cysteine-rich domains permitted a unique insight into the evolutionary development of Plasmodium. Our data indicate that maebl, ama-1, and ebl genes have ancient origins which predate Plasmodium speciation. The maebl evolved as a single locus, including its unique **chimeric** structure, in each Plasmodium species, in parallel with the ama-1 and the

eb1 genes families. The ancient character of maebl, along with its different expression characteristics suggests that MAEBL is unique and does not play an alternative role in invasion to ebl products such as EBA-175. The multiple P. falciparum ebl paralogues that express DBL domains, which have occurred by duplication and diversification, potentially do provide multiple functionally equivalent ligands to EBA-175 for alternative invasion pathways.

AN 2002:437069 BIOSIS  
 DN PREV200200437069  
 TI Evolutionary relationships of conserved cysteine-rich motifs in adhesive molecules of malaria parasites.  
 AU Michon, Pascal; Stevens, Jamie R.; Kaneko, Osamu; Adams, John H. (1)  
 CS (1) Department of Biological Sciences, University of Notre Dame, Notre Dame, IN, 46556: jadams3@nd.edu USA  
 SO Molecular Biology and Evolution, (July, 2002) Vol. 19, No. 7, pp. 1128-1142. <http://www.molbiolevol.org/>. print.  
 ISSN: 0737-4038.  
 DT Article  
 LA English

L37 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS

AB A **recombinant** protein is provided which comprises peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite Plasmodium falciparum. A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (MSP-1, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (CSP and SSP-2), and the gametocyte stage (Pfg27).

AN 2000:145032 CAPLUS  
 DN 132:206925  
 TI **Recombinant** multivalent malarial vaccine against Plasmodium falciparum  
 IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.  
 PA United States Dept. of Health and Human Services, USA; National Institute of Immunology  
 SO PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000011179	A1	20000302	WO 1999-US18869	19990819
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9957785	A1	20000314	AU 1999-57785	19990819
	EP 1105487	A1	20010613	EP 1999-945095	19990819
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	JP 2002523430	T2	20020730	JP 2000-566433	19990819

PRAI US 1998-97703P P 19980821  
WO 1999-US18869 W 19990819  
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2002 ACS

AB Compared with a single-stage antigen-based vaccine, a multistage and multivalent Plasmodium falciparum vaccine would be more efficacious by inducing "multiple layers" of immunity. The authors have constructed a synthetic gene that encodes for 12 B cell, 6 T cell proliferative, and 3 cytotoxic T lymphocyte epitopes derived from 9 stage-specific P. falciparum antigens corresponding to the sporozoite, liver, erythrocytic asexual, and sexual stages. The gene was expressed in the baculovirus system, and a 41-kDa antigen, termed CDC/NIIMALVAC-1, was purified. Immunization in rabbits with the purified protein in the presence of different adjuvants generated antibody responses that recognized vaccine antigen, linear peptides contained in the vaccine, and all stages of P. falciparum. In vitro assays of protection revealed that the vaccine-elicited antibodies strongly inhibited sporozoite invasion of hepatoma cells and growth of blood-stage parasites in the presence of monocytes. These observations demonstrate that a multicomponent, multistage malaria vaccine can induce immune responses that inhibit parasite development of a multiple stages. The rationale and approach used in the development of a multicomponent P. falciparum vaccine will be useful in the development of a multispecies human malaria vaccine and vaccines against other infectious diseases.

AN 1999:150918 CAPLUS

DN 130:310369

TI Immunogenicity and in vitro protective efficacy of a **recombinant** multistage Plasmodium falciparum candidate vaccine

AU Shi, Ya Ping; Hasnain, Seyed E.; Sacchi, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A.

CS Division of Parasitic Diseases, Centers for Disease Control and Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(4), 1615-1620

CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 5 OF 5 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 2

AB Recently it has become evident that the same candidate antigen can be shared by several of the parasite stages, and thus the concept of a multistage vaccine is becoming more and more attractive. A TDR Task Force evaluated the promise and stage of development of some 20 existing asexual blood stage candidate antigens and prepared a strategy for their development leading to clinical testing and field trials. Amongst these are merozoite surface protein 1 (MSP-1), Serine Rich Antigen (SERA), **Apical Membrane Antigen (AMA-1)**, and **Erythrocyte Binding Antigen (EBA)**. A field study conducted in Tanzanian children showed that the SPf66 Colombian vaccine was safe, induced antibodies, and reduced the risk of developing clinical malaria by around 30%. This study, confirmed the potential of the vaccine to confer partial protection in areas of high as well as low intensity of transmission. Pfs25 is a leading candidate antigen for a transmission blocking vaccine. It is found in the ookinete stage of the parasite in the mosquito midgut. Gramme amounts of GMP-grade material have been produced and a vaccine based on the Pfs25 antigen formulated with alum should have gone into phase I and II clinical trials in the USA and

Africa during 1995. Because the first malaria prototype vaccine to be tried out in people on a large scale has been the polymerized synthetic peptide developed by Patarroye on the basis of the SPf66 antigen of *P. falciparum*, the results are with much interest. It is still premature to predict the effectiveness of this vaccine globally, but its development will encourage further progress in a field that has repeatedly been characterized by raised and then dashed hopes. These various vaccines are based on the classical approach to vaccination, which is to raise host immunity against the parasite so as to reduce parasite densities or to sterilize an infection. A newer approach is development of antidiarrhoeal vaccines which aim to alleviate morbidity by suppressing immunopathology in the host. Antidiarrhoeal vaccines are based on neutralizing parasite components that induce host pathology, leaving the parasite itself directly unaffected. These effects would accrue when each type of the disease is considered by itself; however, synergistic effects may be expected when they are used in combination. The rationale for vaccines based on any of these stages was that immunization of various hosts with whole parasites of each of these stages has been able to induce protection or total transmission-blocking immunity. Less significant but not to be discounted is the fact that natural malaria infections in humans have been shown to induce immunity against every one of these parasite stages that are present only in the mosquito vector with component molecules not presented to the human host, such as exclusively ookinete antigens. For several very apparent reasons a vaccine today is conceived of as subunit as opposed to whole parasite vaccines, either in the form of a **recombinant** product or as synthetic peptide constructs. Genes coding for several antigens of *P. falciparum* and some of *P. vivax* have been seen to be common to many Plasmodium antigens; this is that they contain tandem repeats of oligopeptide sequences which often code for immunodominant epitopes. Following several decades of research on malaria vaccine development, the field at a glance may present a conflicting picture, with several achievements, and some disappointments and controversies. Issues facing the development of a malaria vaccine are complex. It is not clear how far we may yet be from achieving this goal. The work of the past decades has laid an extensive foundation of relevant knowledge and technologies, and the goal itself remains as important as ever, will scientists remain committed to this objective?.

AN 97032651 EMBASE  
 DN 1997032651  
 TI Malaria vaccine.  
 AU Khurana S.K.; Talib V.H.  
 CS S.K. Khurana, Department of Laboratory Medicine, Safdarjang Hospital, New Delhi 110 029, India  
 SO Indian Journal of Pathology and Microbiology, (1996) 39/5 (433-442).  
 ISSN: 0377-4929 CODEN: IJPBAR  
 CY India  
 DT Journal; Conference Article  
 FS 004 Microbiology  
 026 Immunology, Serology and Transplantation  
 037 Drug Literature Index  
 LA English  
 SL English

=>

L30 ANSWER 1 OF 6 SCISEARCH COPYRIGHT 2002 ISI (R)

AB **Merozoite surface protein 4 (MSP4)** of

*Plasmodium falciparum* is a glycosylphosphatidylinositol-anchored integral membrane protein that is being developed as a component of a subunit vaccine against malaria. We report here the measurement of naturally acquired antibodies to MSP4 in a population of individuals living in the Khanh-Hoa region of Vietnam, an area where malaria is highly endemic. Antibodies to MSP4 were detected in 94% of the study population at titers of 1:5,000 or greater. Two forms of **recombinant** MSP4 produced in either *Escherichia coli* or *Saccharomyces cerevisiae* were compared as substrates in the enzyme-linked immunosorbent assay. There was an excellent correlation between reactivity measured to either, although the yeast substrate was recognized by a higher percentage of sera. Four different regions of MSP 1 were recognized by human antibodies, demonstrating that there are at least four distinct epitopes in this protein. In the carboxyl terminus, where the single epidermal growth factor-like domain is located, the reactive epitope(s) was shown to be conformation dependent, as disruption of the disulfide bonds almost completely abolished reactivity with human antibodies. The anti-MSP4 antibodies were mainly of the immunoglobulin G1 (IgG1) and IgG3 subclasses, suggesting that such antibodies may play a role in opsonization and complement-mediated lysis of free merozoites. Individuals in the study population were drug-cured and followed up for 6 months; no significant correlation was observed between the anti-MSP1 antibodies and the absence of parasitemia during the surveillance period. As a comparison, antibodies to MSP119 a leading vaccine candidate, were measured, and no correlation with protection was observed in these individuals. The anti-MSP1(19) antibodies were predominantly of the IgG1 isotype, in contrast to the IgG3 predominance noted for MSP4.

AN 2001:502275 SCISEARCH

GA The Genuine Article (R) Number: 443HL

TI Naturally acquired antibody responses to *Plasmodium falciparum* **merozoite surface protein 4** in a population living in an area of endemicity in Vietnam

AU Wang L; Richie T L; Stowers A; Nhan D H; Coppel R L (Reprint)

CS Monash Univ, Dept Microbiol, Clayton, Vic 3800, Australia (Reprint); USN, Med Res Ctr, Malaria Program, Silver Spring, MD 20910 USA; NIAID, Malaria Vaccine Dev Unit, NIH, Rockville, MD 20852 USA; Inst Microbiol Parasitol & Entomol, Hanoi, Vietnam

CYA Australia; USA; Vietnam

SO INFECTION AND IMMUNITY, (JUL 2001) Vol. 69, No. 7, pp. 4390-4397.

Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA.

ISSN: 0019-9567.

DT Article; Journal

LA English

REC Reference Count: 42

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L30 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS

AB A **recombinant** protein is provided which comprises peptides

derived from different stages in the life cycle of the parasite *Plasmodium falciparum*. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite *Plasmodium falciparum*. A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite *Plasmodium falciparum*. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (MSP-1, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (CSP and SSP-2), and the gametocyte stage (Pfg27).



AN 2000:145032 CAPLUS  
 DN 132:206925  
 TI **Recombinant** multivalent malarial vaccine against Plasmodium  
 falciparum  
 IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.  
 PA United States Dept. of Health and Human Services, USA; National Institute  
 of Immunology  
 SO PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000011179	A1	20000302	WO 1999-US18869	19990819
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	AU 9957785	A1	20000314	AU 1999-57785	19990819
	EP 1105487	A1	20010613	EP 1999-945095	19990819
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS

AB Compared with a single-stage antigen-based vaccine, a multistage and multivalent Plasmodium falciparum vaccine would be more efficacious by inducing "multiple layers" of immunity. The authors have constructed a synthetic gene that encodes for 12 B cell, 6 T cell proliferative, and 3 cytotoxic T lymphocyte epitopes derived from 9 stage-specific P. falciparum antigens corresponding to the sporozoite, liver, erythrocytic asexual, and sexual stages. The gene was expressed in the baculovirus system, and a 41-kDa antigen, termed CDC/NIIMALVAC-1, was purified. Immunization in rabbits with the purified protein in the presence of different adjuvants generated antibody responses that recognized vaccine antigen, linear peptides contained in the vaccine, and all stages of P. falciparum. In vitro assays of protection revealed that the vaccine-elicited antibodies strongly inhibited sporozoite invasion of hepatoma cells and growth of blood-stage parasites in the presence of monocytes. These observations demonstrate that a multicomponent, multistage malaria vaccine can induce immune responses that inhibit parasite development of a multiple stages. The rationale and approach used in the development of a multicomponent P. falciparum vaccine will be useful in the development of a multispecies human malaria vaccine and vaccines against other infectious diseases.

AN 1999:150918 CAPLUS  
 DN 130:310369  
 TI Immunogenicity and in vitro protective efficacy of a **recombinant**  
 multistage Plasmodium falciparum candidate vaccine  
 AU Shi, Ya Ping; Hasnain, Seyed E.; Sacchi, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A.  
 CS Division of Parasitic Diseases, Centers for Disease Control and Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333,

USA

SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(4), 1615-1620

CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L30 ANSWER 4 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1

AB Naturally occurring antibody responses to Plasmodium falciparum **rho**try-associated proteins 1 and 2 (RAP-1 and RAP-2) were measured with **recombinant** and parasite-derived forms of the antigens. For comparative purposes, responses to multiple forms of three other malarial antigens were also examined. The sera of 100 Papua New Guineans were screened for antibodies. Eighty-six and 82% of individuals over 30 years of age had antibodies that recognized parasite-derived RAP-1 and RAP-2, respectively. Importantly, we found that **recombinant** and native antigens share linear epitopes seen by the human immune system; thus, the **recombinant** proteins may be adequate human immunogens. However, antibodies affinity purified on **recombinant** RAP-1 reacted with other antigens in addition to parasite-derived RAP-1. Thus, the antigenicity of RAP-1 may have been overestimated previously. The recognition of RAP-1 and RAP-2 correlated with age and with the recognition of **recombinant** forms of the ring-infected erythrocyte surface antigen, **merozoite surface protein 1**, and merozoite surface antigen 2 (MSA2) antigens. Antibodies to these antigens appear to be generated in response to the total exposure to malaria of the host. Antibodies to conserved regions of MSA2 had stronger correlations with both age and the recognition of other antigens than did the full-length **recombinant** MSA2 molecule. In contrast to results with the other antigens, there was no significant difference in the ages of individuals with a certain antibody titer to the full-length **recombinant** or parasite-derived MSA2 molecule, but antibodies to these two antigens did correlate with parasitemia. For all antigens tested, antibody levels after two infections can approach the peak levels of antibodies obtained in immune individuals.

AN 1997:296314 BIOSIS

DN PREV199799595517

TI Assessment of the humoral immune response against Plasmodium falciparum **rho**try-associated proteins 1 and 2.

AU Stowers, Anthony (1); Taylor, Darrin; Prescott, Nicole; Cheng, Qin; Cooper, Juan; Saul, Allan

CS (1) Queensland Inst. Med. Res., P.O. Royal Brisbane Hosp., Herston 4029 Australia

SO Infection and Immunity, (1997) Vol. 65, No. 6, pp. 2329-2338.  
ISSN: 0019-9567.

DT Article

LA English

L30 ANSWER 5 OF 6 USPATFULL

AB Antigenic surface proteins from the intraerythrocytic merozoite stage of Babesia bigemina have been isolated using cell **fusions** and monoclonal antibodies produced thereby. The gene encoding a 58 kD surface protein has been identified and the DNA sequence determined and compared with sequences of other known merozoite proteins. Immunization of mammals, such as bovines, with purified isolates induces an immunological response that is effective to reduce pathological effects of babesiosis induced by Babesia bigemina. Diagnostic kits using monoclonal antibodies and antigenic surface proteins of Babesia bigemina are also disclosed.

AN 95:50252 USPATFULL

TI Immunization against babesiosis using purified surface antigens of  
 Babesia bigemina and similar immunogens  
 IN McGuire, Travis C., Pullman, WA, United States  
 McElwain, Terry F., Pullman, WA, United States  
 Perryman, Lance E., Pullman, WA, United States  
 Davis, William C., Pullman, WA, United States  
 PA Washington State University, Pullman, WA, United States (U.S.  
 corporation)  
 PI US 5422428 19950606  
 AI US 1991-803636 19911206 (7)  
 RLI Continuation-in-part of Ser. No. US 1991-663255, filed on 1 Mar 1991,  
 now patented, Pat. No. US 5209929 which is a continuation of Ser. No. US  
 1987-31328, filed on 27 Mar 1987, now abandoned  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Nucker, Christine M.; Assistant Examiner: Cunningham,  
 Thomas  
 LREP Saliwanchik & Saliwanchik  
 CLMN Number of Claims: 4  
 ECL Exemplary Claim: 1  
 DRWN 9 Drawing Figure(s); 9 Drawing Page(s)  
 LN.CNT 1859  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L30 ANSWER 6 OF 6 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
 AB Live vectors expressing foreign antigens have been used to induce immunity  
 against several pathogens. However, for the virulent rodent malaria  
 parasite Plasmodium yoelii, the use of **recombinant** vaccinia  
 virus, pseudorabies virus, or Salmonella, expressing the circumsporozoite  
 protein of this parasite, failed to induce protection. We generated a  
**recombinant** influenza virus expressing an epitope from the  
 circumsporozoite protein of P. yoelii known to be recognized by CD8+ T  
 cells and demonstrated that this vector induced class I major  
 histocompatibility complex-restricted cytotoxic T cells against this  
 foreign epitope. Immunization of mice with this **recombinant**  
 influenza virus, followed by a **recombinant** vaccinia virus  
 expressing the entire circumsporozoite protein, induced protective  
 immunity against sporozoite-induced malaria. The sequence of immunization  
 appears to be crucial, since a primer injection with **recombinant**  
 vaccinia virus, followed by a booster injection with **recombinant**  
 influenza virus, failed to induce protection. The protection induced by  
 immunization with these **recombinant** viruses is mostly mediated  
 by CD8+ T cells, as treatment of mice with anti-CD8 monoclonal antibody  
 abolishes the anti-malarial immunity. The use of different live vectors  
 for primer and booster injections has a synergistic effect on the immune  
 response and might represent an effective general strategy for eliciting  
 protective immune responses to key antigens of microbial pathogens.  
 AN 1993:343707 BIOSIS  
 DN PREV199396040707  
 TI Priming with **recombinant** influenza virus followed by  
 administration of **recombinant** vaccinia induces CD8-positive  
 T-cell mediated protective immunity against malaria.  
 AU Li, Shengqiang; Rodrigues, Mauricio; Rodriguez, Dolores; Rodriguez, Juan  
 Ramon; Esteban, Mariano; Palese, Peter; Nussenzweig, Ruth S.; Zavala,  
 Fidel (1)  
 CS (1) 341 East 25th Street, New York, NY 10010 USA  
 SO Proceedings of the National Academy of Sciences of the United States of  
 America, (1993) Vol. 90, No. 11, pp. 5214-5218.  
 ISSN: 0027-8424.  
 DT Article  
 LA English

=>

L28 ANSWER 1 OF 6 SCISEARCH COPYRIGHT 2002 ISI (R)

AB Aotus monkeys received 4 doses of Plasmodium falciparum EBA- 175 region II vaccine as plasmid DNA (Dv- Dv) or **recombinant** protein in adjuvant (Pv- Pv) or as 3 doses of DNA and 1 dose of protein (Dv- Pv). After 3 doses, antibody titers were similar to 10(4) in DNA- immunized monkeys and 10(6) in protein- immunized monkeys. A fourth dose did not significantly boost antibody responses in the Dv- Dv only or Pv- Pv only groups, but titers were boosted to similar to 10(6) in monkeys in the Dv- Pv group. Four weeks after the last immunization, the animals were challenged with 10(4) P. falciparum- parasitized erythrocytes. Peak levels of parasitemia were lower in the 16 monkeys that received region II- containing plasmids or proteins than in the 16 controls (geometric mean: 194,178 and 410,110 parasites/μL, respectively; P = .013, Student's t test). Three of 4 monkeys in the Dv-Pv group did not require treatment. These data demonstrate that immunization with EBA- 175 region II induces a significant antiparasite effect in vivo.

AN 2001:20949 SCISEARCH

GA The Genuine Article (R) Number: 385DU

TI Protection of Aotus monkeys by Plasmodium falciparum EBA-175 region II DNA prime-protein boost immunization regimen

AU Jones T R (Reprint); Narum D L; Gozalo A S; Aguiar J; Fuhrmann S R; Liang H; Haynes J D; Moch J K; Lucas C; Luu T; Magill A J; Hoffman S L; Sim B K L

CS USN, Med Res Ctr, Malaria Program, 503 Robert Grant Ave, Silver Spring, MD 20910 USA (Reprint); USN, Med Res Ctr, Malaria Program, Silver Spring, MD 20910 USA; Walter Reed Army Inst Res, Dept Immunol, Silver Spring, MD USA; EntreMed, Rockville, MD USA; USN, Med Res Ctr Detachment, Lima, Peru

CYA USA; Peru

SO JOURNAL OF INFECTIOUS DISEASES, (15 JAN 2001) Vol. 183, No. 2, pp. 303-312.  
 Publisher: UNIV CHICAGO PRESS, 1427 E 60TH ST, CHICAGO, IL 60637-2954 USA.  
 ISSN: 0022-1899.

DT Article; Journal

LA English

REC Reference Count: 39  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L28 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS

AB A **recombinant** protein is provided which comprises peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite Plasmodium falciparum. A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (MSP-1, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (CSP and SSP-2), and the gametocyte stage (Pfg27).

AN 2000:145032 CAPLUS

DN 132:206925

TI **Recombinant** multivalent malarial vaccine against Plasmodium falciparum

IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.

PA United States Dept. of Health and Human Services, USA; National Institute of Immunology

SO PCT Int. Appl., 52 pp.  
 CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000011179	A1	20000302	WO 1999-US18869	19990819
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9957785	A1	20000314	AU 1999-57785	19990819
	EP 1105487	A1	20010613	EP 1999-945095	19990819
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		
RE.CNT	2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L28 ANSWER 3 OF 6 SCISEARCH COPYRIGHT 2002 ISI (R)

AB Invasion of human erythrocytes by Plasmodium falciparum merozoites is a multistep process. For many strains of the parasite, part of this process requires that the **erythrocyte binding antigen** 175 (EBA-175) of the merozoite binds to sialic acid residues of glycophorin A on the erythrocyte surface, a receptor-ligand interaction which represents a potential target for inhibition by antibodies. This study characterizes the reactivity of naturally acquired human antibodies with four **recombinant** proteins representing parts of EBA-175 (region II, regions III to V, and the dimorphic C and F segment region) in populations in which the organism is endemic. Serum immunoglobulin G (IgG) recognizing the **recombinant** proteins is predominantly of the IgG1 and IgG3 subclasses, and its prevalence increases with age. In a large population study in The Gambia, serum positivity for IgG or IgG1 and IgG3 subclass antibodies to each of the EBA-175 **recombinant** antigens was not significantly associated with subsequent protection from clinical malaria. However, there was a trend indicating that individuals with high levels of IgG to region II may have some protection.

AN 2000:723444 SCISEARCH

GA The Genuine Article (R) Number: 355QE

TI Analysis of human antibodies to **erythrocyte binding antigen** 175 of Plasmodium falciparum

AU Okenu D M N; Riley E M; Bickle Q D; Agomo P U; Barbosa A; Daugherty J R; Lanar D E; Conway D J (Reprint)

CS UNIV LONDON LONDON SCH HYG & TROP MED, DEPT INFECT & TROP DIS, KEPPEL ST, LONDON WC1E 7HT, ENGLAND (Reprint); UNIV LONDON LONDON SCH HYG & TROP MED, DEPT INFECT & TROP DIS, LONDON WC1E 7HT, ENGLAND; NATL INST MED RES, DIV BIOCHEM, LAGOS, NIGERIA; WALTER REED ARMY INST RES, DEPT IMMUNOL, SILVER SPRING, MD 20910

CYA ENGLAND; NIGERIA; USA

SO INFECTION AND IMMUNITY, (OCT 2000) Vol. 68, No. 10, pp. 5559-5566.  
Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904.  
ISSN: 0019-9567.

DT Article; Journal

FS LIFE

LA English

REC Reference Count: 36  
\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L28 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS

AB Compared with a single-stage antigen-based vaccine, a multistage and multivalent Plasmodium falciparum vaccine would be more efficacious by

inducing "multiple layers" of immunity. The authors have constructed a synthetic gene that encodes for 12 B cell, 6 T cell proliferative, and 3 cytotoxic T lymphocyte epitopes derived from 9 stage-specific *P. falciparum* antigens corresponding to the sporozoite, liver, erythrocytic asexual, and sexual stages. The gene was expressed in the baculovirus system, and a 41-kDa antigen, termed CDC/NIIMALVAC-1, was purified. Immunization in rabbits with the purified protein in the presence of different adjuvants generated antibody responses that recognized vaccine antigen, linear peptides contained in the vaccine, and all stages of *P. falciparum*. In vitro assays of protection revealed that the vaccine-elicited antibodies strongly inhibited sporozoite invasion of hepatoma cells and growth of blood-stage parasites in the presence of monocytes. These observations demonstrate that a multicomponent, multistage malaria vaccine can induce immune responses that inhibit parasite development of a multiple stages. The rationale and approach used in the development of a multicomponent *P. falciparum* vaccine will be useful in the development of a multispecies human malaria vaccine and vaccines against other infectious diseases.

AN 1999:150918 CAPLUS

DN 130:310369

TI Immunogenicity and in vitro protective efficacy of a **recombinant** multistage *Plasmodium falciparum* candidate vaccine

AU Shi, Ya Ping; Hasnain, Seyed E.; Sacchi, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A.

CS Division of Parasitic Diseases, Centers for Disease Control and Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(4), 1615-1620  
CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 5 OF 6 SCISEARCH COPYRIGHT 2002 ISI (R)

AB A vaccine against *Plasmodium falciparum* malaria is needed now more than ever due the resurgence of the parasite and the increase in drug resistance. However, success in developing an effective malaria vaccine has been elusive.

Among pre-erythrocytic antigens, the major antigen coating the surface of the sporozoite, the circumsporozoite protein (CS), has been, and continues to be, the major target for vaccine development. Despite initial limited success with CS-based vaccines, the use of new adjuvant formulations has led to the development of a promising candidate (the RTS,S vaccine) which has shown significant efficacy in a preliminary trial.

In addition to CS, many other malaria antigens have been identified that play an important role in the parasite life cycle which are being considered for, or are currently undergoing, clinical trials. Among the blood stage antigens, the **merozoite surface protein 1** (MSP-1) is the most promising vaccine candidate.

New approaches to immunisation against malaria being considered include the use of multistage, multicomponent vaccines in attenuated viral vectors (NYVAC-Pf7), or in a combination DNA vaccine.

While there is reason to be optimistic about the prospects for an effective vaccine, many challenges lie ahead that still have to be overcome. Among these are the antigenic polymorphism exhibited by wild parasite strains and the genetic restriction of immune responses.

AN 1998:640747 SCISEARCH

GA The Genuine Article (R) Number: 111AV

TI The current status of malaria vaccines

AU Stoute J A (Reprint); Ballou W R  
 CS WALTER REED ARMY INST RES, DEPT IMMUNOL, DIV COMMUNICABLE DIS & IMMUNOL,  
 BLDG 40, WASHINGTON, DC 20307 (Reprint)  
 CYA USA  
 SO BIODRUGS, (AUG 1998) Vol. 10, No. 2, pp. 123-136.  
 Publisher: ADIS INTERNATIONAL LTD, 41 CENTORIAN DR, PRIVATE BAG 65901,  
 MAIRANGI BAY, AUCKLAND 10, NEW ZEALAND.  
 ISSN: 1173-8804.  
 DT General Review; Journal  
 FS CLIN  
 LA English  
 REC Reference Count: 113  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L28 ANSWER 6 OF 6 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 1  
 AB Recently it has become evident that the same candidate antigen can be  
 shared by several of the parasite stages, and thus the concept of a  
 multistage vaccine is becoming more and more attractive. A TDR Task Force  
 evaluated the promise and stage of development of some 20 existing asexual  
 blood stage candidate antigens and prepared a strategy for their  
 development leading to clinical testing and field trials. Amongst these  
 are **merozoite surface protein 1** (MSP-1),  
 Serine Rich Antigen (SERA), Apical Membrane Antigen (AMA-1), and  
**Erythrocyte Binding Antigen** (EBA). A field  
 study conducted in Tanzanian children showed that the SPf66 Colombian  
 vaccine was safe, induced antibodies, and reduced the risk of developing  
 clinical malaria by around 30%. This study, confirmed the potential of the  
 vaccine to confer partial protection in areas of high as well as low  
 intensity of transmission. Pfs25 is a leading candidate antigen for a  
 transmission blocking vaccine. It is found in the ookinete stage of the  
 parasite in the mosquito midgut. Gramme amounts of GMP-grade material have  
 been produced and a vaccine based on the Pfs25 antigen formulated with  
 alum should have gone into phase I and II clinical trials in the USA and  
 Africa during 1995. Because the first malaria prototype vaccine to be  
 tried out in people on a large scale has been the polymerized synthetic  
 peptide developed by patarroye on the basis of the SPf66 antigen of *P.*  
*falciparum*, the results are with much interest. It is still premature to  
 predict the effectiveness of this vaccine globally, but its development  
 will encourage further progress in a field that has repeatedly been  
 characterized by raised and then dashed hopes. These various vaccines are  
 based on the classical approach to vaccination, which is to raise host  
 immunity against the parasite so as to reduce parasite densities or to  
 sterilize an infection. A newer approach is development of antidisease  
 vaccines which aim to alleviate morbidity by suppressing immunopathology  
 in the host. Antidisease vaccines are based on neutralizing parasite  
 components that induce host pathology, leaving the parasite itself  
 directly unaffected. These effects would accrue when each type of the  
 disease is considered by itself; however, synergistic effects may be  
 expected when they are used in combination. The rationale for vaccines  
 based on any of these stages was that immunization of various hosts with  
 whole parasites of each of these stages has been able to induce protection  
 or total transmission-blocking immunity. Less significant but not to be  
 discounted is the fact that natural malaria infections in humans have been  
 shown to induce immunity against every one of these parasite stages that  
 are present only in the mosquito vector with component molecules not  
 presented to the human host, such as exclusively ookinete antigens. For  
 several very apparent reasons a vaccine today is conceived of as subunit  
 as opposed to show 1 parasite vaccines, either in the form of a  
**recombinant** product or as synthetic peptide constructs. Genes  
 coding for several antigens of *P. falciparum* and some of *P. vivax* have  
 been seen to be common to many Plasmodium antigens; this is that they  
 contain tandem repeats of oligopeptide sequences which often code for  
 immunodominant epitopes. Following several decades of research on malaria  
 vaccine development, the field at a glance may present a conflicting

picture, with several achievements, and some disappointments and controversies. Issues facing the development of a malaria vaccine are complex. It is not clear how far we may yet be from achieving this goal. The work of the past decades has laid an extensive foundation of relevant knowledge and technologies, and the goal itself remains as important as ever, will scientists remain committed to this objective?.

AN 97032651 EMBASE  
DN 1997032651  
TI Malaria vaccine.  
AU Khurana S.K.; Talib V.H.  
CS S.K. Khurana, Department of Laboratory Medicine, Safdarjang Hospital, New Delhi 110 029, India  
SO Indian Journal of Pathology and Microbiology, (1996) 39/5 (433-442).  
ISSN: 0377-4929 CODEN: IJPBAR  
CY India  
DT Journal; Conference Article  
FS 004 Microbiology  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
LA English  
SL English

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L24 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2002 ACS

AB A **fusion** protein which is combined by the Plasmodium **merozoite surface protein-1** (MSP1) and the Plasmodium **apical membrane antigen 1** (AMA-1), the coding DNA sequence, the vector containing the sequence, the host cell containing the vector, and the genetic engineering method for preparing the **fusion** protein and the usage for producing anti-malarial vaccine. The AMA-1/MSP1 **fusion** protein of the present invention has excellent immunogenicity and could cause an effective immune response against Plasmodium.

AN 2002:716315 CAPLUS

TI The preparation and usage of Plasmodium **fusion** antigen

IN Pan, Weiqing

PA Second Military Medical University, Peop. Rep. China

SO PCT Int. Appl.

CODEN: PIXXD2

DT Patent

LA Chinese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072625	A1	20020919	WO 2002-CN49	20020201
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	CN 2001-105292	A	20010201		

L24 ANSWER 2 OF 16 SCISEARCH COPYRIGHT 2002 ISI (R)

AB Serine proteases play crucial roles in erythrocyte invasion by merozoites of the malaria parasite. Plasmodium falciparum subtilisin-like protease-1 (PfSUB-1) is synthesized during maturation of the intraerythrocytic parasite and accumulates in a set of merozoite secretory organelles, suggesting that it may play a role in host cell invasion or post-invasion events. We describe the production, purification, and characterization of **recombinant** PfSUB-1 and comparison with the authentic protease detectable in parasite extracts. The **recombinant** protease requires high levels of calcium for optimum activity and has an alkaline pH optimum. Using a series of decapeptide and protein substrates, PfSUB-1 was found to have a relaxed substrate specificity with regard to the P1 position but is unable to efficiently cleave substrates with a P1 leucine residue. Similarly, replacement of a P4 valine with alanine severely reduced cleavage efficiency, whereas its replacement with lysine abolished cleavage. In all respects investigated, the **recombinant** protease was indistinguishable from parasite-derived enzyme. Three-dimensional homology modeling of the PfSUB-1 catalytic domain based on an alignment with closely related bacterial subtilisins and an orthologue from the rodent malaria Plasmodium yoelii suggests that the protease has at least three potential calcium ion-binding sites, three intramolecular disulfide bridges, and a single free cysteine within the enzyme S1 pocket. A predicted highly polar S1 pocket and a hydrophobic S4 subsite are in broad agreement with the experimentally determined substrate specificity.

AN 2002:708719 SCISEARCH

GA The Genuine Article (R) Number: 585DW

TI Expression of **recombinant** Plasmodium falciparum subtilisin-like protease-1 in insect cells - Characterization, comparison with the parasite protease, and homology modeling

AU Withers-Martinez C; Saldanha J W; Ely B; Hackett F; O'Connor T; Blackman M

J (Reprint)

CS Natl Inst Med Res, Div Parasitol, Mill Hill, London NW7 1AA, England (Reprint); Natl Inst Med Res, Div Parasitol, London NW7 1AA, England; Natl Inst Med Res, Div Prot Struct, London NW7 1AA, England; Natl Inst Med Res, Div Math Biol, London NW7 1AA, England; Natl Inst Med Res, Div Virol, London NW7 1AA, England

CYA England

SO JOURNAL OF BIOLOGICAL CHEMISTRY, (16 AUG 2002) Vol. 277, No. 33, pp. 29698-29709.  
 Publisher: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814-3996 USA.  
 ISSN: 0021-9258.

DT Article; Journal

LA English

REC Reference Count: 48  
 \*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L24 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2002 ACS

AB The authors tested a cytokine-enhanced, multiantigen, DNA priming and poxvirus boosting vaccine regimen for prevention of malaria in the Plasmodium knowlesi-rhesus macaque model system. Animals were primed with a mixt. of DNA plasmids encoding two pre-erythrocytic-stage proteins and two erythrocytic-stage proteins from P. knowlesi and combinations of the cytokines granulocyte-macrophage colony-stimulating factor, interleukin-4, and tumor necrosis factor alpha and were boosted with a mixt. of four **recombinant**, attenuated vaccinia virus strains encoding the four P. knowlesi antigens. Two weeks after boosting, the geometric mean immunofluorescence titers in the immunized groups against sporozoites and infected erythrocytes ranged from 160 to 8096 and from 1810 to 5120, resp. The geometric mean anti-P. knowlesi circumsporozoite protein (PkCSP) titers ranged from 1761 to 24,242. Peripheral blood mononuclear cells (PBMC) from the immunized monkeys produced gamma interferon (IFN-.gamma.) in response to incubation with pooled peptides from the PkCSP at frequencies of 10 to 571 spot-forming cells/106 PBMC. Following challenge with 100 infectious P. knowlesi sporozoites, 2 of 11 immunized monkeys were sterilely protected, and 7 of the 9 infected monkeys resolved their parasitemias spontaneously. In contrast, all four controls became infected and required treatment for overwhelming parasitemia. Early protection was strongly assocd. with IFN-.gamma. responses against a pool of peptides from the pre-erythrocytic-stage antigen, PkCSP. These findings demonstrate that a multistage, multiantigen, DNA priming and poxvirus boosting vaccine regimen can protect nonhuman primates from an otherwise lethal malaria sporozoite challenge.

AN 2002:554557 CAPLUS

DN 137:138987

TI Protection of rhesus macaques against lethal Plasmodium knowlesi malaria by a heterologous DNA priming and poxvirus boosting immunization regimen

AU Rogers, William O.; Weiss, Walter R.; Kumar, Anita; Aguiar, Joao C.; Tine, John A.; Gwadz, Robert; Harre, Joseph G.; Gowda, Kalpana; Rathore, Dharmendar; Kumar, Sanjai; Hoffman, Stephen L.

CS Malaria Program, Naval Medical Research Center, Silver Spring, MD, 20910, USA

SO Infection and Immunity (2002), 70(8), 4329-4335  
 CODEN: INFIBR; ISSN: 0019-9567

PB American Society for Microbiology

DT Journal

LA English

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 16 SCISEARCH COPYRIGHT 2002 ISI (R)

AN 2002:574117 SCISEARCH

GA The Genuine Article (R) Number: BU66Z

TI Vaccines against asexual stage malaria parasites

AU Kumar S (Reprint); Epstein J E; Richie T L  
 CS US FDA, Lab Bacterial & Parasit Dis, Off Blood Review & Res, DETTD, CBER,  
 HMF-313, 1401 Rockville Pike, Rockville, MD 20852 USA (Reprint); Naval Med  
 Res Ctr, Malaria Program, Silver Spring, MD USA  
 CYA USA  
 SO MALARIA IMMUNOLOGY, 2ND EDITION, (JUL 2002) Vol. 80, pp. 262-286.  
 Publisher: KARGER, POSTFACH, CH-4009 BASEL, SWITZERLAND.  
 ISSN: 1015-0145.  
 DT General Review; Journal  
 LA English  
 REC Reference Count: 139

L24 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2002 ACS

AB Although several malaria vaccine candidate antigens have been identified,  
 the most suitable methods for their delivery are still being investigated.  
 In this regard, direct immunization with DNA encoding these vaccine target  
 antigens is an attractive alternative. Here, we have investigated the  
 immune responses to DNA immunization with three major vaccine target  
 antigens: the **apical membrane antigen-1** and  
 the 19-kDa C-terminal fragment of **merozoite surface**  
**protein-1** from the erythrocytic stage, and the  
 thrombospondin-related adhesive protein from the pre-erythrocytic stage of  
 Plasmodium cynomolgi in rhesus monkeys. Antigen-specific antibodies were  
 developed in all the immunized monkeys and peripheral blood mononuclear  
 cells from all immunized monkeys proliferated to different extents upon in  
 vitro stimulation with the corresponding **recombinant** proteins.  
 The immunized monkeys were challenged with P. cynomolgi sporozoites. All  
 of the immunized animals developed infection but although there was no  
 significant difference between the control and vaccinated animals in terms  
 of pre-patent period, total duration of patency and primary peak  
 parasitemia, the vaccinated animals had significantly lower secondary peak  
 parasitemia than the control animals.

AN 2002:669282 CAPLUS

TI Immunogenicity and protective efficacy of three DNA vaccines encoding  
 pre-erythrocytic- and erythrocytic-stage antigens of Plasmodium cynomolgi  
 in rhesus monkeys

AU Bhardwaj, Devesh; Hora, Bhavna; Singh, Naresh; Puri, Sunil Kumar; Lalitha,  
 Punchayil; Rupa, Prithy; Chauhan, Virander Singh

CS Malaria Research Group, International Centre for Genetic Engineering and  
 Biotechnology, New Delhi, 110067, India

SO FEMS Immunology and Medical Microbiology (2002), 34(1), 33-43

CODEN: FIMIEV; ISSN: 0928-8244

PB Elsevier Science B.V.

DT Journal

LA English

L24 ANSWER 6 OF 16 MEDLINE

AB Although several malaria vaccine candidate antigens have been identified,  
 the most suitable methods for their delivery are still being investigated.  
 In this regard, direct immunization with DNA encoding these vaccine target  
 antigens is an attractive alternative. Here, we have investigated the  
 immune responses to DNA immunization with three major vaccine target  
 antigens: the **apical membrane antigen-1** and  
 the 19-kDa C-terminal fragment of **merozoite surface**  
**protein-1** from the erythrocytic stage, and the  
 thrombospondin-related adhesive protein from the pre-erythrocytic stage of  
 Plasmodium cynomolgi in rhesus monkeys. Antigen-specific antibodies were  
 developed in all the immunized monkeys and peripheral blood mononuclear  
 cells from all immunized monkeys proliferated to different extents upon in  
 vitro stimulation with the corresponding **recombinant** proteins.  
 The immunized monkeys were challenged with P. cynomolgi sporozoites. All  
 of the immunized animals developed infection but although there was no  
 significant difference between the control and vaccinated animals in terms  
 of pre-patent period, total duration of patency and primary peak

parasitemia, the vaccinated animals had significantly lower secondary peak parasitemia than the control animals.

AN 2002453414 IN-PROCESS  
DN 22198025 PubMed ID: 12208604  
TI Immunogenicity and protective efficacy of three DNA vaccines encoding pre-erythrocytic- and erythrocytic-stage antigens of Plasmodium cynomolgi in rhesus monkeys.  
AU Bhardwaj Devesh; Hora Bhavna; Singh Naresh; Puri Sunil; Lalitha Punchayil; Rupa Prithy; Chauhan Virander  
CS Malaria Research Group, International Centre for Genetic Engineering and Biotechnology, 110067, New Delhi, India.  
SO FEMS IMMUNOLOGY AND MEDICAL MICROBIOLOGY, (2002 Sep 6) 34 (1) 33.  
Journal code: 9315554. ISSN: 0928-8244.  
CY Netherlands  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS IN-PROCESS; NONINDEXED; Priority Journals  
ED Entered STN: 20020906  
Last Updated on STN: 20020906

L24 ANSWER 7 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
AB The demonstration of the i) acquired protective immunity in adults living in endemic areas, ii) cure of malaria patients with passive transfer of specific immunoglobulins, and iii) protection conferred by vaccination with sporozoites attenuated by radiation, justifies the search for a malaria vaccine. Given the improbability that a vaccine directed against a single antigen will be completely protective, the preferred option is to combine several antigens of different stages of the parasite in a multi-component multi-stage vaccine which is likely to protect both travellers and populations living in endemic areas. Potential technologies include **recombinant** proteins, synthetic peptides and DNA vaccines, the relevant genes encoding for malaria antigens being inserted into a plasmid or a live vector such as vaccinia or poxvirus. A number of human trials with several antigens and technologies have been carried out in the last ten years. Three vaccines have undergone testing in the field in phase IIb or III trials. SPf66, including three synthetic peptides, has been extensively evaluated in different epidemiological settings. The overall efficacy was 23%, and only 2% in African infants, the most susceptible group. The circumsporozoite **recombinant** protein fused with the antigen S of the hepatitis B virus and formulated in a potent adjuvant (RTS,S) led to a high, but short-term, level of protection against infection and disease in Gambian adults. The first pure asexual blood-stage vaccine including three antigens of the merozoite stage (MSP1 & 2 and RESA, Combination B) had an efficacy of 62% to reduce parasite density in Papua New Guinean children. A malaria vaccine that can reduce the burden of disease in the most affected populations is thus an achievable goal, each trial providing additional knowledge about mechanisms of protection as well as about vaccine technology.

AN 2001415068 EMBASE  
TI Malaria vaccines: Development of new technologies for immunisation.  
AU Genton B.  
CS Dr. B. Genton, Swiss Tropical Institute, Socinstrasse 57, CH-4002 Basel, Switzerland. Blaise.genton@hospvd.ch  
SO CPD Infection, (2001) 2/3 (102-109).  
Refs: 53  
ISSN: 1468-1668 CODEN: CPDIF3  
CY United Kingdom  
DT Journal; General Review  
FS 004 Microbiology  
026 Immunology, Serology and Transplantation  
007 Pediatrics and Pediatric Surgery  
030 Pharmacology  
037 Drug Literature Index  
017 Public Health, Social Medicine and Epidemiology

039 Pharmacy  
LA English  
SL English

L24 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2002 ACS

AB A **recombinant** protein is provided which comprises peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. The protein is useful as a reagent and, when combined with a pharmaceutically-acceptable vehicle or carrier, is useful as a vaccine against the malarial parasite Plasmodium falciparum. A genetic construct used to produce this **recombinant** protein vaccine is also described. In addn., antibodies to this **recombinant** protein are provided which are useful for the detection and measurement of peptides derived from different stages in the life cycle of the parasite Plasmodium falciparum. Thus, antigen CDC/NIIMALVAC-1 was prepd. using a baculovirus/Sf21 cell system and tested as a vaccine. The CDC/NIIMALVAC-1 antigen contains epitopes from the blood stage (MSP-1, MSP-2, AMA-1, EBA-175, and RAP-1), the liver stage (LSA-1), the sporozoite stage (CSP and SSP-2), and the gametocyte stage (Pfg27).

AN 2000:145032 CAPLUS

DN 132:206925

TI **Recombinant** multivalent malarial vaccine against Plasmodium falciparum

IN Lal, Altaf A.; Shi, Ya Ping; Hasnain, Seyed E.

PA United States Dept. of Health and Human Services, USA; National Institute of Immunology

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2000011179	A1	20000302	WO 1999-US18869	19990819
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 9957785	A1	20000314	AU 1999-57785	19990819
	EP 1105487	A1	20010613	EP 1999-945095	19990819
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002523430	T2	20020730	JP 2000-566433	19990819
PRAI	US 1998-97703P	P	19980821		
	WO 1999-US18869	W	19990819		

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 9 OF 16 USPATFULL

AB Provided are hydrophobic targeting sequences, which may serve to target heterologous proteins to a variety of cellular membranes. In particular, the structural components of the nuclear envelope, or those components which become nucleus-associated, may be targeted with the sequences provided. Also provided are methods of targeting heterologous proteins to particular membranes, and the use of these targeted proteins in therapeutic, diagnostic and insecticidal applications.

AN 2000:9723 USPATFULL

TI Unique nucleotide and amino acid sequence and uses thereof

IN Summers, Max D., Bryan, TX, United States

Braunagel, Sharon C., Bryan, TX, United States  
 Hong, Tao, Bryan, TX, United States  
 PA The Texas A & M University System, College Station, TX, United States  
 (U.S. corporation)  
 PI US 6017734 20000125  
 AI US 1997-792832 19970130 (8)  
 RLI Continuation-in-part of Ser. No. US 1996-678435, filed on 3 Jul 1996,  
 now abandoned  
 PRAI US 1995-955P 19950707 (60)  
 DT Utility  
 FS Granted  
 EXNAM Primary Examiner: Elliott, George C.; Assistant Examiner: Schwartzman,  
 Robert  
 LREP Arnold, White & Durkee  
 CLMN Number of Claims: 56  
 ECL Exemplary Claim: 1  
 DRWN 47 Drawing Figure(s); 24 Drawing Page(s)  
 LN.CNT 7846  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L24 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2002 ACS  
 AB Maternally derived antibodies are believed to protect infants against  
 infection, but there is little direct evidence for a protective role of  
 passively acquired antibodies against malaria. A longitudinal study of  
 malaria infection in 143 infants was conducted in a region of southern  
 Ghana where Plasmodium falciparum is endemic. Infants born in the  
 high-transmission season were less likely to become infected in the first  
 20 wk of life than children born in the low-transmission season. Plasma,  
 obtained at birth, was tested for IgG and IgG subclasses to P. falciparum  
 schizonts and **recombinant** circumsporozoite antigen, MSP-119,  
 MSP-2, AMA-1, and Pf155 (also called ring-infected erythrocyte surface  
 antigen). Antibody levels at birth were not assocd. with resistance to  
 malaria infection. On the contrary, antibodies at birth were pos. assocd.  
 with infection, indicating that high levels of maternally derived  
 antibodies represent a marker for intensity of exposure to malaria  
 infection in infants. However, all five children who experienced high-d.  
 infections (>100 parasites/.mu.l of blood) were seroneg. for MSP-119 at  
 the time of infection.  
 AN 2000:685443 CAPLUS  
 DN 133:333841  
 TI Lack of association between maternal antibody and protection of African  
 infants from malaria infection  
 AU Riley, E. M.; Wagner, G. E.; Ofori, M. F.; Wheeler, J. G.; Akanmori, B.  
 D.; Tetteh, K.; McGuinness, D.; Bennett, S.; Nkrumah, F. K.; Anders, R.  
 F.; Koram, K. A.  
 CS Department of Infectious and Tropical Diseases, London School of Hygiene  
 and Tropical Medicine, London, WC1E 7HT, UK  
 SO Infection and Immunity (2000), 68(10), 5856-5863  
 CODEN: INFIBR; ISSN: 0019-9567  
 PB American Society for Microbiology  
 DT Journal  
 LA English  
 RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 11 OF 16 SCISEARCH COPYRIGHT 2002 ISI (R)  
 AB Apical membrane Ag 1 (AMA1) is a leading malaria vaccine candidate.  
 Homologues of AMA1 can induce protection in mice and monkeys, but the  
 mechanism of immunity is not understood. rc;lice immunized with a  
 refolded, **recombinant**, Plasmodium chabaudi AMA1 fragment (AMA1B)  
 can withstand subsequent challenge with P. chabaudi adami. Here we show  
 that CD4(+) T cell depletion, but not gamma delta T cell depletion, can  
 cause a significant drop in antiparasite immunity in either immunized  
 normal or immunized B cell KO mice. In normal mice, this loss of immunity

is not accompanied by a decline in Ab levels. These observations indicate a role for AMA1-specific Ab-independent T cell-mediated immunity. However, the loss of immunity in normal CD4(+) T cell-depleted mice is temporary. Furthermore, immunized B cell KO mice cannot survive infection, demonstrating the absolute importance of B cells, and presumably Ab, in AMA1-induced immunity, CD4(+) T cells specific for a cryptic conserved epitope on AMA1 can adoptively transfer protection to athymic (nu/nu) mice, the level of which is enhanced by cotransfer of rabbit anti-AMA1-specific antisera, Recipients of rabbit antisera alone do not survive. Some protected recipients of T cells plus antisera do not develop their own AMA 1-specific Ab response, suggesting that AMA 1-specific CMI alone can protect mice. These data are the first to demonstrate the specificity of any protective CMI response in malaria and have important implications for developing a malaria vaccine.

AN 2000:492886 SCISEARCH

GA The Genuine Article (R) Number: 327WH

TI CD4(+) T cells acting independently of antibody contribute to protective immunity to Plasmodium chabaudi infection after **apical membrane antigen 1** immunization

AU Xu H J; Hodder A N; Yan H R; Crewther P E; Anders R F; Good M F (Reprint)

CS QUEENSLAND INST MED RES, COOPERAT RES CTR VACCINE TECHNOL, PO ROYAL BRISBANE HOSP, BRISBANE, QLD 4029, AUSTRALIA (Reprint); QUEENSLAND INST MED RES, COOPERAT RES CTR VACCINE TECHNOL, BRISBANE, QLD 4029, AUSTRALIA; WALTER & ELIZA HALL INST MED RES, MELBOURNE, VIC 3050, AUSTRALIA

CYA AUSTRALIA

SO JOURNAL OF IMMUNOLOGY, (1 JUL 2000) Vol. 165, No. 1, pp. 389-396.

Publisher: AMER ASSOC IMMUNOLOGISTS, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814.

ISSN: 0022-1767.

DT Article; Journal

FS LIFE

LA English

REC Reference Count: 26

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

L24 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2002 ACS

AB Compared with a single-stage antigen-based vaccine, a multistage and multivalent Plasmodium falciparum vaccine would be more efficacious by inducing "multiple layers" of immunity. The authors have constructed a synthetic gene that encodes for 12 B cell, 6 T cell proliferative, and 3 cytotoxic T lymphocyte epitopes derived from 9 stage-specific P. falciparum antigens corresponding to the sporozoite, liver, erythrocytic asexual, and sexual stages. The gene was expressed in the baculovirus system, and a 41-kDa antigen, termed CDC/NIIMALVAC-1, was purified. Immunization in rabbits with the purified protein in the presence of different adjuvants generated antibody responses that recognized vaccine antigen, linear peptides contained in the vaccine, and all stages of P. falciparum. In vitro assays of protection revealed that the vaccine-elicited antibodies strongly inhibited sporozoite invasion of hepatoma cells and growth of blood-stage parasites in the presence of monocytes. These observations demonstrate that a multicomponent, multistage malaria vaccine can induce immune responses that inhibit parasite development of a multiple stages. The rationale and approach used in the development of a multicomponent P. falciparum vaccine will be useful in the development of a multispecies human malaria vaccine and vaccines against other infectious diseases.

AN 1999:150918 CAPLUS

DN 130:310369

TI Immunogenicity and in vitro protective efficacy of a **recombinant** multistage Plasmodium falciparum candidate vaccine

AU Shi, Ya Ping; Hasnain, Seyed E.; Sacchi, John B.; Holloway, Brian P.; Fujioka, Hisashi; Kumar, Nirbhay; Wohlhueter, Robert; Hoffman, Stephen L.; Collins, William E.; Lal, Altaf A.

CS Division of Parasitic Diseases, Centers for Disease Control and

Prevention, National Centers for Infectious Diseases, Atlanta, GA, 30333, USA

SO Proceedings of the National Academy of Sciences of the United States of America (1999), 96(4), 1615-1620  
CODEN: PNASA6; ISSN: 0027-8424

PB National Academy of Sciences

DT Journal

LA English

RE.CNT 33 . THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 13 OF 16 MEDLINE

AB We have previously cloned genes from multiple rodent malaria species exhibiting characteristics of the genes encoding Duffy binding like-erythrocyte binding proteins (DBL-EBP). Homology is seen in the intron/exon structure of the genes and in the carboxyl terminal region (including the deduced carboxyl cysteine-rich domain) of the proteins they encode. However, the amino termini of these proteins are not homologous to the DBL-EBP but contain tandem cysteine-rich regions that are similar to the cysteine-rich region of AMA-1 (**apical membrane antigen-1**), a rhoptry protein. This new family of proteins has been termed MAEBL and these are paralogues of both AMA-1 and the DBL-EBP. Serum against the carboxyl cysteine-rich region of the Plasmodium yoelii YM MAEBL reacted to parasites with a punctate fluorescence pattern characteristic of apical organelle proteins and also localized MAEBL to the surface of merozoites within schizonts. This antiserum immunoprecipitated a protein doublet (120/128 kDa) that was unexpectedly insoluble when compared to members of the DBL-EBP. Characterization of MAEBL was extended through colocalization studies comparing the P. yoelii YM MAEBL to other parasite proteins. This protein appeared to be located in the rhoptry organelles as it colocalized with both AMA-1 and the P. yoelii 235 kDa rhoptry proteins within parasites. In addition, MAEBL is expressed relatively early in schizont development and appears on the merozoite surface after segmentation. Both the pattern and time of expression of the P. yoelii YM MAEBL are consistent with a rhoptry rather than a microneme protein.

AN 1999066929 MEDLINE

DN 99066929 PubMed ID: 9851604

TI Plasmodium yoelii YM MAEBL protein is coexpressed and colocalizes with rhoptry proteins.

AU Noe A R; Adams J H

CS Department of Biological Sciences, University of Notre Dame, Indiana, USA.

NC R29 AI33656 (NIAID)

T32 AI0703018 (NIAID)

SO MOLECULAR AND BIOCHEMICAL PARASITOLOGY, (1998 Oct 30) 96 (1-2) 27-35.  
Journal code: 8006324. ISSN: 0166-6851.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199902

ED Entered STN: 19990301

Last Updated on STN: 19990301

Entered Medline: 19990216

L24 ANSWER 14 OF 16 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE  
1

AB The highly attenuated NYVAC vaccinia virus strain has been utilized to develop a multiantigen, multistage vaccine candidate for malaria, a disease that remains a serious global health problem and for which no highly effective vaccine exists. Genes encoding seven Plasmodium falciparum antigens derived from the sporozoite (circumsporozoite protein and sporozoite surface protein 2), liver (liver stage antigen 1), blood (**merozoite surface protein 1**, serine repeat



antigen, and **apical membrane antigen 1**), and sexual (25-kDa sexual-stage antigen) stages of the parasite life cycle were inserted into a single NYVAC genome to generate NYVAC-Pf7. Each of the seven antigens was expressed in NYVAC-Pf7-infected culture cells, and the genotypic and phenotypic stability of the **recombinant virus** was demonstrated. When inoculated into rhesus monkeys, NYVAC-Pf7 was safe and well tolerated. Antibodies that recognize sporozoites, liver, blood, and sexual stages of *P. falciparum* were elicited. Specific antibody responses against four of the *P. falciparum* antigens (circumsporozoite protein, sporozoite surface protein 2, **merozoite surface protein 1**, and 25-kDa sexual-stage antigen) were characterized. The results demonstrate that NYVAC-Pf7 is an appropriate candidate vaccine for further evaluation in human clinical trials.

AN 1996:463347 BIOSIS

DN PREV199699185703

TI NYVAC-Pf7: A poxvirus-vectored, multiantigen, multistage vaccine candidate for *Plasmodium falciparum* malaria.

AU Tine, John A.; Lanar, David E.; Smith, Darlene M.; Wellde, Bruce T.; Schultheiss, Peter; Ware, Lisa A.; Kauffman, Elizabeth B.; Wirtz, Robert A.; De Taisne, Charles; Hui, George S. N.; Chang, Sandra P.; Church, Preston; Hollingdale, Michael R.; Kaslow, David C.; Hoffman, Stephen; Guito, Kenneth P.; Ballou, W. Ripley; Sadoff, Jerald C.; Paoletti, Enzo

CS Inq. Inq. USA

SO Infection and Immunity, (1996) Vol. 64, No. 9, pp. 3833-3844.  
ISSN: 0019-9567.

DT Article

LA English

L24 ANSWER 15 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.DUPLICATE 2

AB Recently it has become evident that the same candidate antigen can be shared by several of the parasite stages, and thus the concept of a multistage vaccine is becoming more and more attractive. A TDR Task Force evaluated the promise and stage of development of some 20 existing asexual blood stage candidate antigens and prepared a strategy for their development leading to clinical testing and field trials. Amongst these are **merozoite surface protein 1** (MSP-1), Serine Rich Antigen (SERA), **Apical Membrane Antigen** (AMA-1), and Erythrocyte Binding Antigen (EBA). A field study conducted in Tanzanian children showed that the SPf66 Colombian vaccine was safe, induced antibodies, and reduced the risk of developing clinical malaria by around 30%. This study, confirmed the potential of the vaccine to confer partial protection in areas of high as well as low intensity of transmission. Pfs25 is a leading candidate antigen for a transmission blocking vaccine. It is found in the ookinete stage of the parasite in the mosquito midgut. Gramme amounts of GMP-grade material have been produced and a vaccine based on the Pfs25 antigen formulated with alum should have gone into phase I and II clinical trials in the USA and Africa during 1995. Because the first malaria prototype vaccine to be tried out in people on a large scale has been the polymerized synthetic peptide developed by Patarroye on the basis of the SPf66 antigen of *P. falciparum*, the results are with much interest. It is still premature to predict the effectiveness of this vaccine globally, but its development will encourage further progress in a field that has repeatedly been characterized by raised and then dashed hopes. These various vaccines are based on the classical approach to vaccination, which is to raise host immunity against the parasite so as to reduce parasite densities or to sterilize an infection. A newer approach is development of antidiarrhoeal vaccines which aim to alleviate morbidity by suppressing immunopathology in the host. Antidiarrhoeal vaccines are based on neutralizing parasite components that induce host pathology, leaving the parasite itself directly unaffected. These effects would accrue when each type of the disease is considered by itself; however, synergistic effects may be expected when they are used in combination. The rationale for vaccines based on any of these stages was that immunization of various hosts with

whole parasites of each of these stages has been able to induce protection or total transmission-blocking immunity. Less significant but not to be discounted is the fact that natural malaria infections in humans have been shown to induce immunity against every one of these parasite stages that are present only in the mosquito vector with component molecules not presented to the human host, such as exclusively ookinete antigens. For several very apparent reasons a vaccine today is conceived of as subunit as opposed to show 1 parasite vaccines, either in the form of a **recombinant** product or as synthetic peptide constructs. Genes coding for several antigens of *P. falciparum* and some of *P. vivax* have been seems to be common to many *Plasmodium* antigens; this is that they contain tandem repeats of oligopeptide sequences which often code for immunodominant epitopes. Following several decades of research on malaria vaccine development, the field at a glance may present a conflicting picture, with several achievements, and some disappointments and controversies. Issues facing the development of a malaria vaccine are complex. It is not clear how far we may yet be from achieving this goal. The work of the past decades has laid an extensive foundation of relevant knowledge and technologies, and the goal itself remains as important as ever, will scientists remain committed to this objective?.

AN 97032651 EMBASE  
 DN 1997032651  
 TI Malaria vaccine.  
 AU Khurana S.K.; Talib V.H.  
 CS S.K. Khurana, Department of Laboratory Medicine, Safdarjang Hospital, New Delhi 110 029, India  
 SO Indian Journal of Pathology and Microbiology, (1996) 39/5 (433-442).  
 ISSN: 0377-4929 CODEN: IJPBAR  
 CY India  
 DT Journal; Conference Article  
 FS 004 Microbiology  
 026 Immunology, Serology and Transplantation  
 037 Drug Literature Index  
 LA English  
 SL English

L24 ANSWER 16 OF 16 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.  
 AN 94150765 EMBASE  
 DN 1994150765  
 TI Expression systems that best mimic native structure: Which ones to try first and why.  
 AU Chang S.P.  
 CS DTMMM, John A. Burns School of Medicine, University of Hawaii, 3675 Kilauea Avenue, Honolulu, HI 96816, United States  
 SO American Journal of Tropical Medicine and Hygiene, (1994) 50/4 SUPPL. (11-19).  
 ISSN: 0002-9637 CODEN: AJTHAB  
 CY United States  
 DT Journal; Conference Article  
 FS 004 Microbiology  
 026 Immunology, Serology and Transplantation  
 037 Drug Literature Index  
 LA English

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